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(12) DEMANDE INTERNATIONALE PUBLIÉE EN VERTU DU TRAITÉ DE COOPÉRATION
EN MATIÈRE DE BREVETS (PCT)

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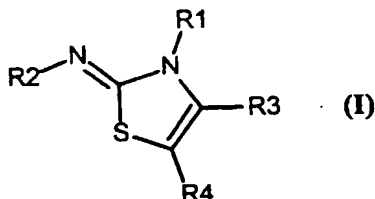
(81) États désignés (national): AE, AG, AL, AM, AT, AU, AZ,
BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE,
DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
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NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
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[Suite sur la page suivante]

(54) Title: 2-ARYLIMINO-2,3-DIHYDROTHIAZOLES, AND THEIR USE THEREOF AS SOMATOSTATIN RECEPTOR LIG-
ANDS

(54) Titre: 2-ARYLIMINO-2,3-DIHYDROTHIAZOLES ET LEUR UTILISATION COMME LIGANDS DES RECEPTEURS DE
LA SOMATOSTATINE



(57) Abstract: The invention concerns novel 2-arylimino-2,3-dihydrothiazole derivatives of general formula (I), their preparation methods and their use as medicines, in particular for treating pathological conditions or diseases wherein one (or several) somatostatin receptors is/are involved. Said pathological conditions include in particular acromegaly, pituitary adenoma or endocrine gastroenteropancreatic tumours including the carcinoid syndrome, and gastrointestinal bleeding. In general formula (I), R1 represents in particular an alkyl, aralkyl, cyclohexyl radical optionally substituted by an amino radical or R1 represents a -C(R11)(R12)-CO-R10 radical wherein R11 represents H, R12 represents in particular H, carbocyclic or heterocyclic alkyl, cycloalkyl or aralkyl and R10

represents in particular an aminoalkylamino radical; R2 represents a carbocyclic or heterocyclic aryl radical optionally substituted; R3 represents in particular COR5 or a carbocyclic or heterocyclic alkyl, adamantyl, aryl radical optionally substituted, carbocyclic or heterocyclic aralkyl optionally substituted on the aryl group; and R5 represents a radical fixed by a nitrogen atom to the group CO.

(57) Abrégé: L'invention a pour objet de nouveaux dérivés de 2-arylimino-2,3-dihydrothiazoles de formule générale (I), leurs procédés de préparation et leur utilisation en tant que médicaments, en particulier dans le traitement des états pathologiques ou des maladies dans lesquels un (ou plusieurs) des récepteurs de la somatostatine est (sont) impliqué(s). Ces états incluent en particulier l'acromégalie, les adénomes hypophysaires ou les tumeurs gastroentéro-pancréatiques endocriniennes dont le syndrome carcinomateux, les saignements gastro-intestinaux. R1 représente notamment un radical alkyle, aralkyle ou cyclohexyle éventuellement substitué par un radical amino ou R1 représente un radical -C(R11)(R12)-CO-R10 dans lequel R11 représente H, R12 représente notamment H, alkyle, cycloalkyle ou aralkyle carbocyclique ou hétérocyclique et R10 représente notamment un radical aminoalkylamino; R2 représente un radical aryle carbocyclique ou hétérocyclique éventuellement substitué; R3 représente notamment COR5 ou un radical alkyle, adamantyle, aryle carbocyclique ou hétérocyclique éventuellement substitué, aralkyle carbocyclique ou hétérocyclique éventuellement substitué sur le groupe aryle; et R5 représente un radical fixé par un atome d'azote au groupe CO.

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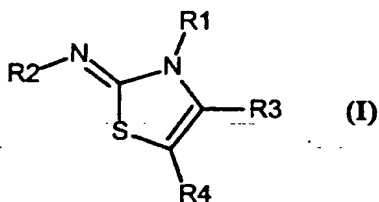
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MC, NL, PT, SE), brevet OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

En ce qui concerne les codes à deux lettres et autres abréviations, se référer aux "Notes explicatives relatives aux codes et abréviations" figurant au début de chaque numéro ordinaire de la Gazette du PCT.

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2-ARYLIMINO-2,3-DIHYDROTHIAZOLES ET LEUR UTILISATION COMME LIGANDS DES RECEPTEURS DE LA SOMATOSTATINE

La présente demande a pour objet de nouveaux dérivés de 2-arylimino-2,3-dihydrothiazoles et leurs procédés de préparation. Ces produits ont une bonne affinité avec certains sous-types de récepteurs de la somatostatine et présentent donc d'intéressantes propriétés pharmacologiques. L'invention concerne également ces
5 mêmes produits en tant que médicaments, des compositions pharmaceutiques les contenant et leur utilisation pour la préparation d'un médicament destiné à traiter les états pathologiques ou les maladies dans lesquels un (ou plusieurs) des récepteurs de la somatostatine est (sont) impliqué(s).

La somatostatine (SST) est un tétradécapeptide cyclique qui a été isolé pour la première
10 fois de l'hypothalamus en tant que substance inhibitrice de l'hormone de croissance (Brazeau P. et al., *Science* 1973, 179, 77-79). Elle intervient également en tant que neurotransmetteur dans le cerveau (Reisine T. et al., *Neuroscience* 1995, 67, 777-790 ; Reisine et al., *Endocrinology* 1995, 16, 427-442). Le clonage moléculaire a permis de montrer que la bioactivité de la somatostatine dépend directement d'une famille de cinq
15 récepteurs liés à la membrane.

L'hétérogénéité des fonctions biologiques de la somatostatine a conduit à des études pour essayer d'identifier les relations structure-activité des analogues peptidiques sur les récepteurs de la somatostatine, ce qui a amené la découverte de 5 sous-types de récepteurs (Yamada et al., *Proc. Natl. Acad. Sci. U.S.A.*, 89, 251-255, 1992 ; Raynor, K.
20 et al, *Mol. Pharmacol.*, 44, 385-392, 1993). Les rôles fonctionnels de ces récepteurs sont actuellement activement étudiés. Les affinités avec les différents sous-types de récepteurs de la somatostatine ont été associés au traitement des désordres / maladies suivants. L'activation des sous-types 2 et 5 a été associée à la suppression de l'hormone de croissance (GH) et plus particulièrement à celle des adénomes sécrétant GH
25 (acromégalie) et de ceux sécrétant l'hormone TSH. L'activation du sous-type 2 mais pas du sous-type 5 a été associée au traitement des adénomes sécrétant la prolactine. D'autres indications associées avec l'activation des sous-types de récepteurs de la somatostatine sont la resténose, l'inhibition de la sécrétion d'insuline et/ou de glucagon

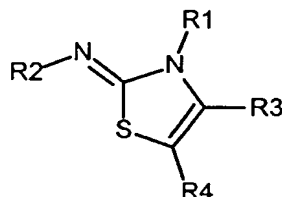
et en particulier le diabète mellitus, l'hyperlipidémie, l'insensibilité à l'insuline, le Syndrome X, l'angiopathie, la rétinopathie proliférative, le phénomène de Dawn et la néphropathie; l'inhibition de la sécrétion d'acide gastrique et en particulier les ulcères peptiques, les fistules entérocutanées et pancréaticocutanées, le syndrome du colon
5 irritable, le syndrome de Dumping, le syndrome des diarrhées aqueuses, les diarrhées reliées au SIDA, les diarrhées induites par la chimiothérapie, la pancréatite aiguë ou chronique et les tumeurs gastrointestinales sécrétrices; le traitement du cancer comme les hépatomes; l'inhibition de l'angiogénèse, le traitement des désordres inflammatoires comme l'arthrite; le rejet chronique des allogreffes; l'angioplastie; la prévention des
10 saignements des vaisseaux greffés et des saignements gastrointestinaux. Les agonistes de la somatostatine peuvent aussi être utilisés pour diminuer le poids d'un patient.

Parmi les désordres pathologiques associés à la somatostatine (Moreau J.P. et al., *Life Sciences*, 1987, 40, 419 ; Harris A.G. et al., *The European Journal of Medicine*, 1993, 2, 97-105), on peut donc citer par exemple : l'acromégalie, les adénomes hypophysaires,
15 la maladie de Cushing, les gonadotrophinomes et les prolactinomes, les effets secondaires cataboliques des glucocorticoïdes, le diabète insulino-dépendant, la rétinopathie diabétique, la néphropathie diabétique, l'hyperthyroïdie, le gigantisme, les tumeurs gastroentéropancréatiques endocriniennes dont le syndrome carcinoïde, le VIPome, l'insulinome, la nésidioblastose, l'hyperinsulinémie, le glucagonome, le
20 gastrinome et le syndrome de Zollinger-Ellison, le GRFome ainsi que le saignement aigu des varices œsophagiennes, le reflux gastroœsophagien, le reflux gastroduodénal, la pancréatite, les fistules entérocutanées et pancréatiques mais aussi les diarrhées, les diarrhées réfractaires du syndrome d'immunodépression acquise, la diarrhée chronique sécrétoire, la diarrhée associée avec le syndrome de l'intestin irrité, les troubles liés au
25 peptide libérateur de gastrine, les pathologies secondaires aux greffes intestinales, l'hypertension portale ainsi que les hémorragies des varices chez des malades avec cirrhose, l'hémorragie gastro-intestinale, l'hémorragie de l'ulcère gastroduodénal, la maladie de Crohn, les scléroses systémiques, le dumping syndrome, le syndrome du petit intestin, l'hypotension, la sclérodermie et le carcinome thyroïdien médullaire, les
30 maladies liées à l'hyperprolifération cellulaire comme les cancers et plus particulièrement le cancer du sein, le cancer de la prostate, le cancer thyroïdien ainsi que le cancer pancréatique et le cancer colorectal, les fibroses et plus particulièrement la fibrose du rein, la fibrose du foie, la fibrose du poumon, la fibrose de la peau, également la fibrose du système nerveux central ainsi que celle du nez et la fibrose induite par la
35 chimiothérapie, et d'autres domaines thérapeutiques comme, par exemple, les céphalées y compris les céphalées associées aux tumeurs hypophysaires, les douleurs, les accès de panique, la chimiothérapie, la cicatrisation des plaies, l'insuffisance rénale résultant

d'un retard de croissance, l'obésité et retard de croissance lié à l'obésité, le retard de croissance utérin, la dysplasie du squelette, le syndrome de Noonan, le syndrome d'apnée du sommeil, la maladie de Graves, la maladie polykystique des ovaires, les pseudokystes pancréatiques et ascites, la leucémie, le méningiome, la cachexie
 5 cancéreuse, l'inhibition des H pylori, le psoriasis ainsi que la maladie d'Alzheimer. On peut également citer l'ostéoporose.

La déposante a trouvé que les composés de formule générale (I) décrits ci-après présentaient une affinité et une sélectivité pour les récepteurs de la somatostatine. Comme la somatostatine et ses analogues peptidiques ont souvent une mauvaise
 10 biodisponibilité par voie orale et une faible sélectivité (Robinson, C., *Drugs of the Future*, 1994, 19, 992; Reubi, J.C. et al., *TIPS*, 1995, 16, 110), lesdits composés, agonistes ou antagonistes non-peptidiques de la somatostatine, peuvent être avantageusement utilisés pour traiter les états pathologiques ou les maladies tels que
 15 présentés ci-dessus et dans lesquels un (ou plusieurs) des récepteurs de la somatostatine est (sont) impliqué(s). De manière préférentielle, lesdits composés peuvent être utilisés pour le traitement de l'acromégalie, des adénomes hypophysaires ou des tumeurs gastroentéropancréatiques endocriniennes dont le syndrome carcinoïde.

Les composés de la présente invention répondent à la formule générale (I)



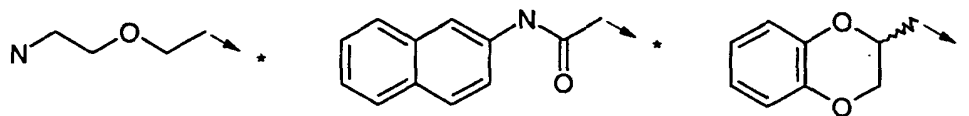
(I)

sous forme racémique, d'énantiomère ou toutes combinaisons de ces formes, dans
 20 laquelle :

R1 représente un radical amino(C₂-C₇)alkyle, aminoalkylarylalkyle, aminoalkylcycloalkylalkyle, (C₁-C₁₅)alkyle, (C₃-C₇)cycloalkyle, (C₁-C₆)alkyl(C₃-C₆)cycloalkyle, (C₃-C₆)cycloalkylalkyle, cyclohexénylalkyle, alkényle, alkynyle, aryle carbocyclique comptant au moins deux cycles dont l'un au
 25 moins n'est pas aromatique, aralkyle carbocyclique ou hétérocyclique éventuellement substitué sur le groupe aryle, bis-arylalkyle, alkoxyalkyle, furannylalkyle, tétrahydrofurannylalkyle, dialkylaminoalkyle, N-acétamidoalkyle, cyanoalkyle, alkylthioalkyle, arylhydroxyalkyle, aralkoxyalkyle, morpholinoalkyle,

pyrrolidinoalkyle, pipéridinoalkyle, N-alkylpyrrolidinoalkyle, N-alkylpipérazinylalkyle ou oxopyrrolidinoalkyle,

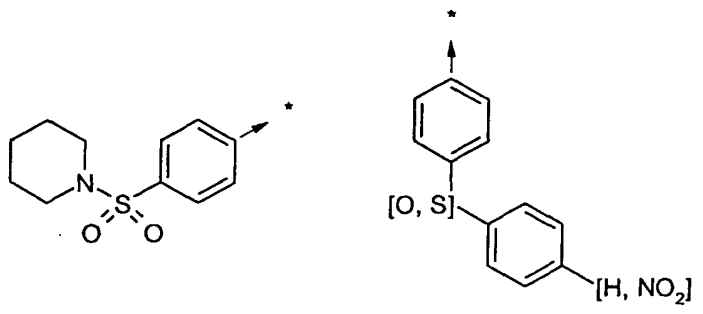
ou R1 représente l'un des radicaux représentés ci-dessous :



5 ou encore R1 représente un radical -C(R11)(R12)-CO-R10 ;

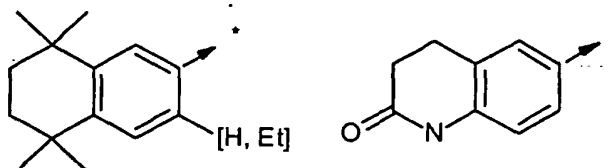
R2 représente un radical aryle carbocyclique ou hétérocyclique éventuellement substitué,

ou bien R2 représente l'un des radicaux représentés ci-dessous :



10 R3 représente un radical alkyle, adamantyle, aryle carbocyclique ou hétérocyclique éventuellement substitué, aralkyle carbocyclique ou hétérocyclique éventuellement substitué sur le groupe aryle,

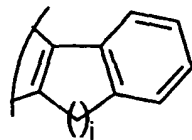
ou R3 représente l'un des radicaux représentés ci-dessous :



ou encore R3 représente un radical -CO-R5 ;

R4 représente H, alkyle, aralkyle carbocyclique ou hétérocyclique éventuellement situé
15 sur le radical aryle ;

ou alors le radical  représente un radical de formule générale

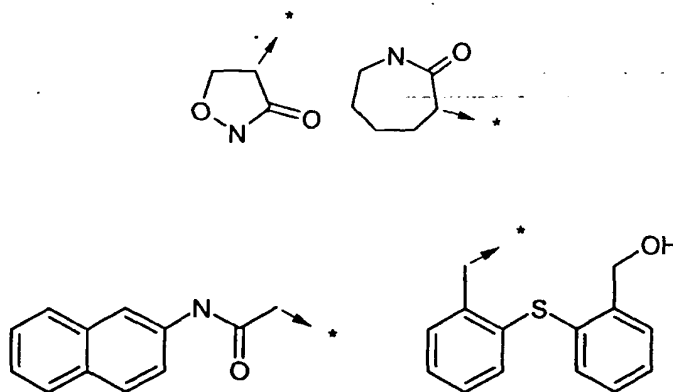


dans laquelle i représente un entier de 1 à 3 ;

R5 représente le radical $N(R6)(R7)$;

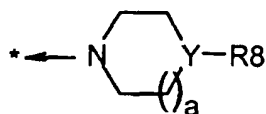
- 5 R6 représente un radical (C_1-C_{16}) alkyle, cycloalkylalkyle, hydroxyalkyle, aryloxyalkyle, aralkyle carbocyclique ou hétérocyclique éventuellement substitué sur le groupe aryle, aralkoxyalkyle, arylhydroxyalkyle, alkoxyalkyle, alkylthioalkyle, alkényle, alkynyle, cyclohexényle, cyclohexénylalkyle, alkylthiohydroxyalkyle, cyanoalkyle,
- 10 N-acétamidoalkyle, bis-arylalkyle éventuellement substitué sur les groupes aryle, di-arylalkyle éventuellement substitué sur les groupes aryle, morpholinoalkyle, pyrrolidinoalkyle, pipéridinoalkyle, N-alkylpyrrolidinoalkyle, oxopyrrolidinoalkyle, tétrahydrofuranylalkyle, N-benzylpyrrolidinoalkyle, N-alkylpipérazinylalkyle, N-benzylpipérazinylalkyle, N-benzylpipéridinylalkyle ou N-
- 15 alkoxycarbonylpipéridinyle, ou R6 représente un radical (C_3-C_8) cycloalkyle éventuellement substitué par un radical choisi parmi le groupe composé du radical hydroxy et d'un radical alkyle,

ou bien R6 représente l'un des radicaux représentés ci-dessous :



R7 représente H ou un radical alkyle, hydroxyalkyle, mono- ou di-aminoalkyle ou aralkyle ;

ou encore le radical -N(R6)(R7) représente le radical de formule générale suivante :



dans laquelle :

- 5 R8 représente H, alkyle, hydroxyalkyle, aryle carbocyclique ou hétérocyclique éventuellement substitué, aralkyle éventuellement substitué sur le groupe aryle, alkényle, alkoxyalkyle, cycloalkyle, cycloalkylalkyle, bis-arylalkyle, pipéridinyle, pyrrolidinyle, hydroxy, arylalkényle,

ou R8 représente -X-(CH₂)_b-R9 ;

- 10 R9 représente H ou un radical alkyle, alkoxy, aryloxy, aryle carbocyclique ou hétérocyclique éventuellement substitué, morpholinyle, pyrrolidinyle, alkylamino ou N,N'-(alkyl)(aryl)amino ;

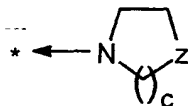
X représente CO, CO-NH ou SO₂ ;

Y représente CH ou N ;

- 15 a représente 1 ou 2 ;

b représente un entier de 0 à 6 ;

ou le radical N(R6)(R7) représente un radical de formule générale

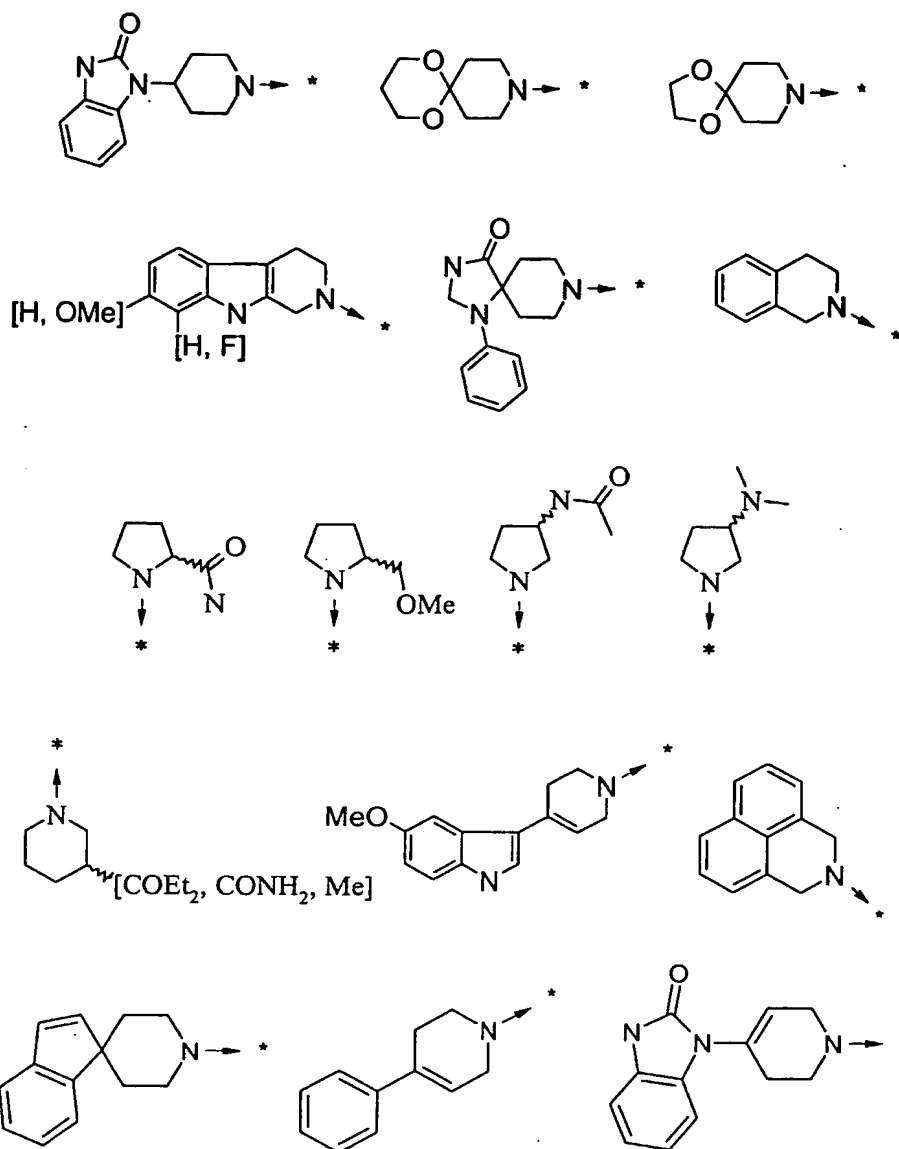


dans laquelle :

Z représente CH, O ou S ;

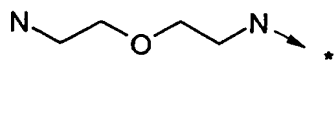
- 20 c représente un entier de 0 à 4 ;

ou encore le radical N(R6)(R7) représente l'un des radicaux représentés ci-dessous :



R10 représente un radical amino(C₂-C₇)alkylamino, ((aminoalkyl)aryl)alkylamino, ((aminoalkyl)cycloalkyl)alkylamino, pipérazinyle, homopipérazinyle,

ou R10 représente le radical représenté ci-dessous :



R11 représente H ;

R12 représente H ou un radical alkyle, (C₃-C₇)cycloalkyle, aralkyle carbocyclique ou hétérocyclique éventuellement substitué, propargyle, allyle, hydroxyalkyle, alkylthioalkyle, arylalkylalkoxyalkyle, arylalkylthioalkoxyalkyle ;

ou les composés de l'invention seront des sels des composés de formule générale (I).

5 Lorsque les composés de formule générale (I) comprendront des radicaux R1, R2, R3, R4, R6, R8, R9 ou R12 incluant un radical aryle substitué ou aralkyle substitué sur le groupe aryle, lesdits radicaux aryle ou aralkyle seront de préférence tels que :

- Pour R1, lorsque le groupe aryle est substitué, il peut l'être de 1 à 5 fois (outre la liaison qui le relie au reste de la molécule) par des radicaux choisis indépendamment
10 parmi le groupe composé d'un atome halogène et d'un radical alkyle, alkoxy, alkylthio, haloalkyle, haloalkoxy, aryle, aralkoxy ou SO₂NH₂. Le cas échéant, deux substituants peuvent être reliés entre eux et former un cycle, par exemple en représentant ensemble un radical méthylènedioxy ou propylène.

- Pour R2, lorsque le groupe aryle est substitué, il peut l'être de 1 à 5 fois (outre la
15 liaison qui le relie au reste de la molécule). Le radical aryle peut être substitué par des radicaux choisis indépendamment parmi le groupe composé d'un atome halogène et d'un radical alkyle, alkoxy, alkylthio, haloalkyle, alkényle, haloalkoxy, nitro, cyano, azido, SO₂N, mono- ou di-alkylamino, aminoalkyle, aralkoxy ou aryle. Le cas échéant, deux substituants peuvent être reliés entre eux et former un cycle, par exemple en
20 représentant ensemble un radical méthylènedioxy, éthylènedioxy ou propylène.

- Pour R3, lorsque le(s) groupe(s) aryle(s) (provenant d'un radical aryle ou aralkyle) est (sont) substitué(s), il(s) peu(ven)t l'être, selon le cas, de 1 à 5 fois (outre la liaison qui le(s) relie au reste de la molécule). Les radicaux aryle ou aralkyle carbocycliques peuvent être substitués de 1 à 5 fois sur le noyau aryle par des radicaux choisis
25 indépendamment parmi le groupe composé d'un atome halogène et d'un radical alkyle, hydroxy, alkoxy, haloalkyle, haloalkoxy, nitro, cyano, azido, mono- ou di-alkylamino, pyrrolidinyle, morpholinyle, aralkoxy ou aryle. Le cas échéant, deux substituants peuvent être reliés entre eux et former un cycle, par exemple en représentant ensemble un radical alkylènedioxy comptant de 1 à 3 atomes de carbone. Les radicaux aryle ou
30 aralkyle hétérocycliques de R3 peuvent être substitués de 1 à 2 fois sur le noyau par des radicaux choisis indépendamment parmi le groupe composé d'un atome halogène et d'un radical alkyle.

- Pour R4, lorsque le groupe aryle est substitué, il peut l'être de 1 à 5 fois (outre la liaison qui le relie au reste de la molécule). Le radical aryle peut être substitué par des

radicaux choisis indépendamment parmi le groupe composé d'un atome halogène et d'un radical alkyle ou alkoxy.

5 - Pour R6, lorsque le(s) groupe(s) aryle(s) est (sont) substitué(s), il(s) peu(ven)t l'être de 1 à 5 fois (outre la liaison qui le(s) relie au reste de la molécule). Les substituants éventuels sur les groupes aryle sont choisis indépendamment parmi le groupe composé d'un atome halogène et d'un radical alkyle, alkoxy, alkylthio, haloalkyle, haloalkoxy, aryle, aryloxy ou SO_2NH_2 .

10 - Pour R8, lorsque le(s) groupe(s) aryle(s) est (sont) substitué(s), il(s) peu(ven)t l'être de 1 à 5 fois (outre la liaison qui le(s) relie au reste de la molécule). Les substituants éventuels sur les groupes aryle sont choisis indépendamment parmi le groupe composé d'un atome halogène et d'un radical alkyle, haloalkyle, alkoxy, hydroxy, cyano, nitro ou alkylthio.

15 - Pour R9, lorsque le radical aryle carbocyclique ou hétérocyclique est substitué, il peut l'être de 1 à 5 fois (outre la liaison qui le relie au reste de la molécule). Les substituants éventuels sur le groupe aryle sont choisis indépendamment parmi le groupe composé d'un atome halogène et d'un radical alkyle, haloalkyle, alkoxy, haloalkoxy, alkylthio, aryle carbocyclique, hydroxy, cyano ou nitro.

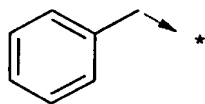
20 - Pour R12, lorsque le radical aryle carbocyclique ou hétérocyclique est substitué, il peut l'être de 1 à 5 fois (outre la liaison qui le relie au reste de la molécule). Les substituants éventuels sur le groupe aryle sont choisis indépendamment parmi le groupe composé d'un atome halogène et d'un radical alkyle, alkoxy, aryle carbocyclique, aralkoxy, hydroxy, cyano ou nitro.

25 Par alkyle, lorsqu'il n'est pas donné plus de précision, on entend un radical alkyle linéaire ou ramifié comptant de 1 à 6 atomes de carbone. Par cycloalkyle, lorsqu'il n'est pas donné plus de précision, on entend un système monocyclique carboné comptant de 3 à 7 atomes de carbone. Par alkényle, lorsqu'il n'est pas donné plus de précision, on entend un radical alkyle linéaire ou ramifié comptant de 1 à 6 atomes de carbone et présentant au moins une insaturation (double liaison). Par alkynyle, lorsqu'il n'est pas
30 donné plus de précision, on entend un radical alkyle linéaire ou ramifié comptant de 1 à 6 atomes de carbone et présentant au moins une double insaturation (triple liaison). Par aryle carbocyclique ou hétérocyclique, on entend un système carbocyclique ou hétérocyclique comprenant au moins un cycle aromatique, un système étant dit hétérocyclique lorsque l'un au moins des cycles qui le composent comporte un hétéroatome (O, N ou S). Par haloalkyle, on entend un radical alkyle dont au moins l'un
35 des atomes d'hydrogène (et éventuellement tous) est remplacé par un atome halogène.

Par radicaux alkylthio, alkoxy, haloalkyle, haloalkoxy, aminoalkyle, alkényle, alkynyle et aralkyle, on entend respectivement les radicaux alkylthio, alkoxy, haloalkyle, haloalkoxy, aminoalkyle, alkényle, alkynyle et aralkyle dont le radical alkyle a la signification indiquée précédemment.

- 5 Par alkyle linéaire ou ramifié ayant de 1 à 6 atomes de carbone, on entend en particulier les radicaux méthyle, éthyle, propyle, isopropyle, butyle, isobutyle, sec-butyle et tert-butyle, pentyle, néopentyle, isopentyle, hexyle, isohexyle. Par cycloalkyle, on entend en particulier les radicaux cyclopropanyle, cyclobutyle, cyclopentyle, cyclohexyle et cycloheptyle. Par aryle carbocyclique ou hétérocyclique, on entend
 10 notamment les radicaux phényle, naphtyle, pyridinyle, furannyle, thiophényle, indanyle, indolyle, imidazolyle, benzofurannyle, benzothiophényle, phtalimidyle. Par aralkyle carbocyclique ou hétérocyclique, on entend notamment les radicaux benzyle, phényléthyle, phénylpropyle, phénylbutyle, indolylalkyle, phtalimidoalkyle, naphtylalkyle, furannylalkyle, thiophénylalkyle, benzothiophénylalkyle, pyridinylalkyle
 15 et imidazolylalkyle.

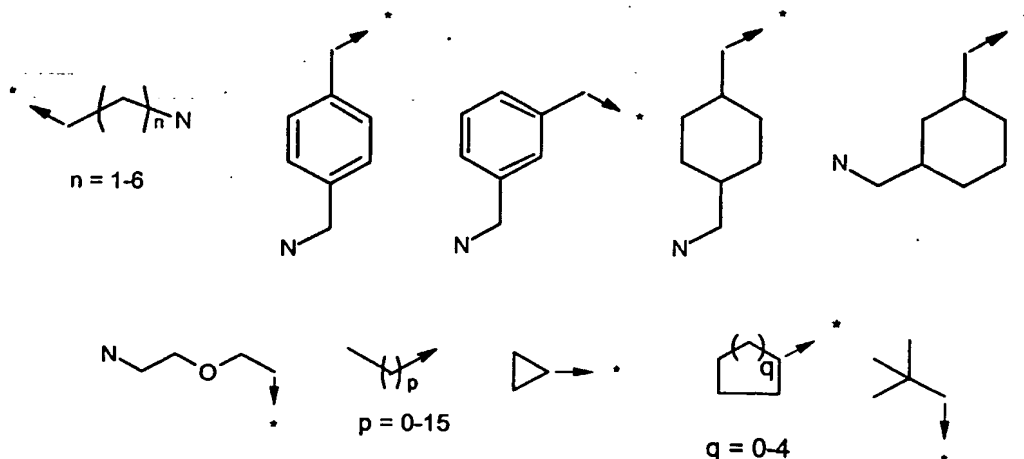
Lorsqu'il émane une flèche d'une structure chimique, ladite flèche indique le point d'attache. Par exemple :

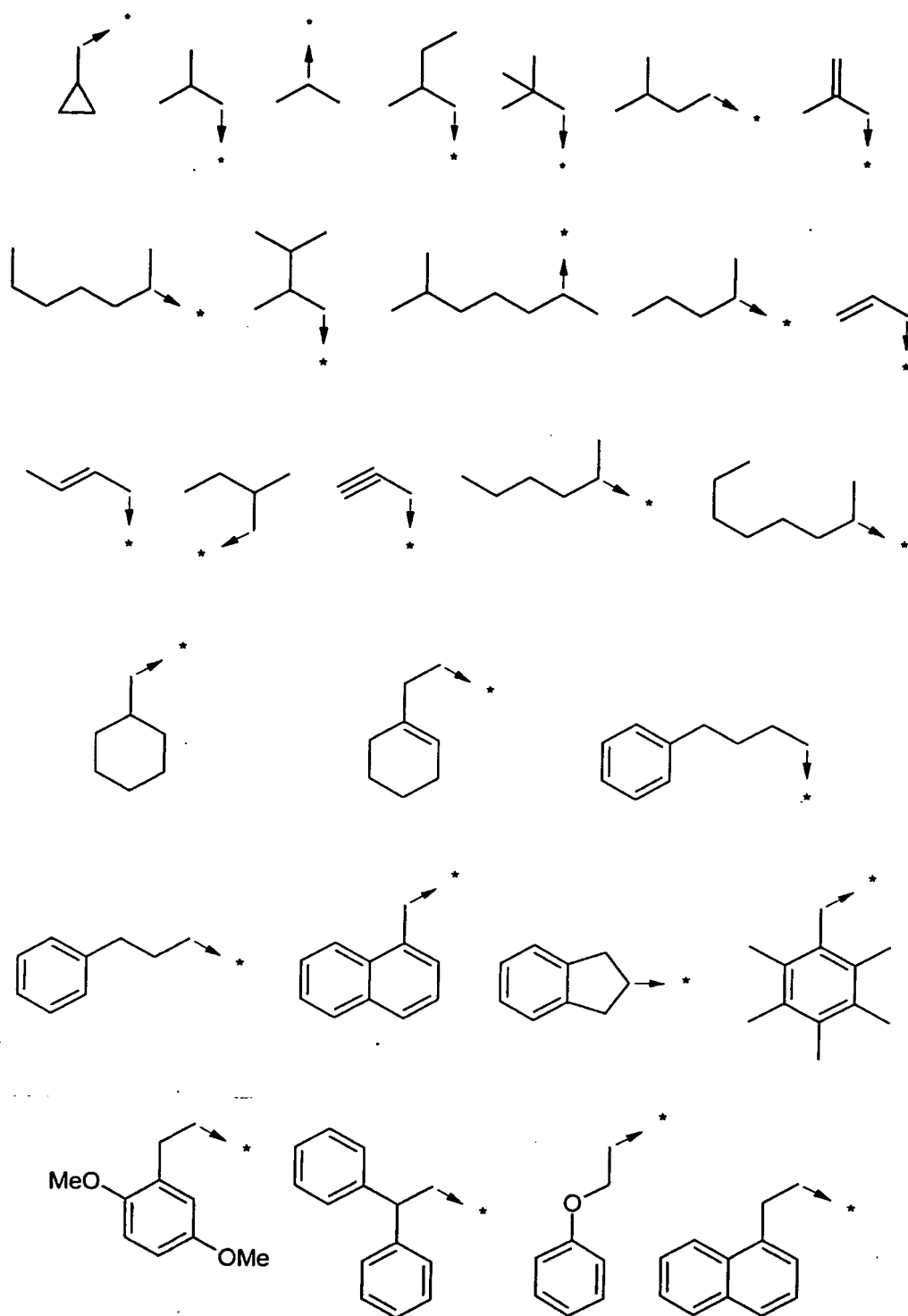


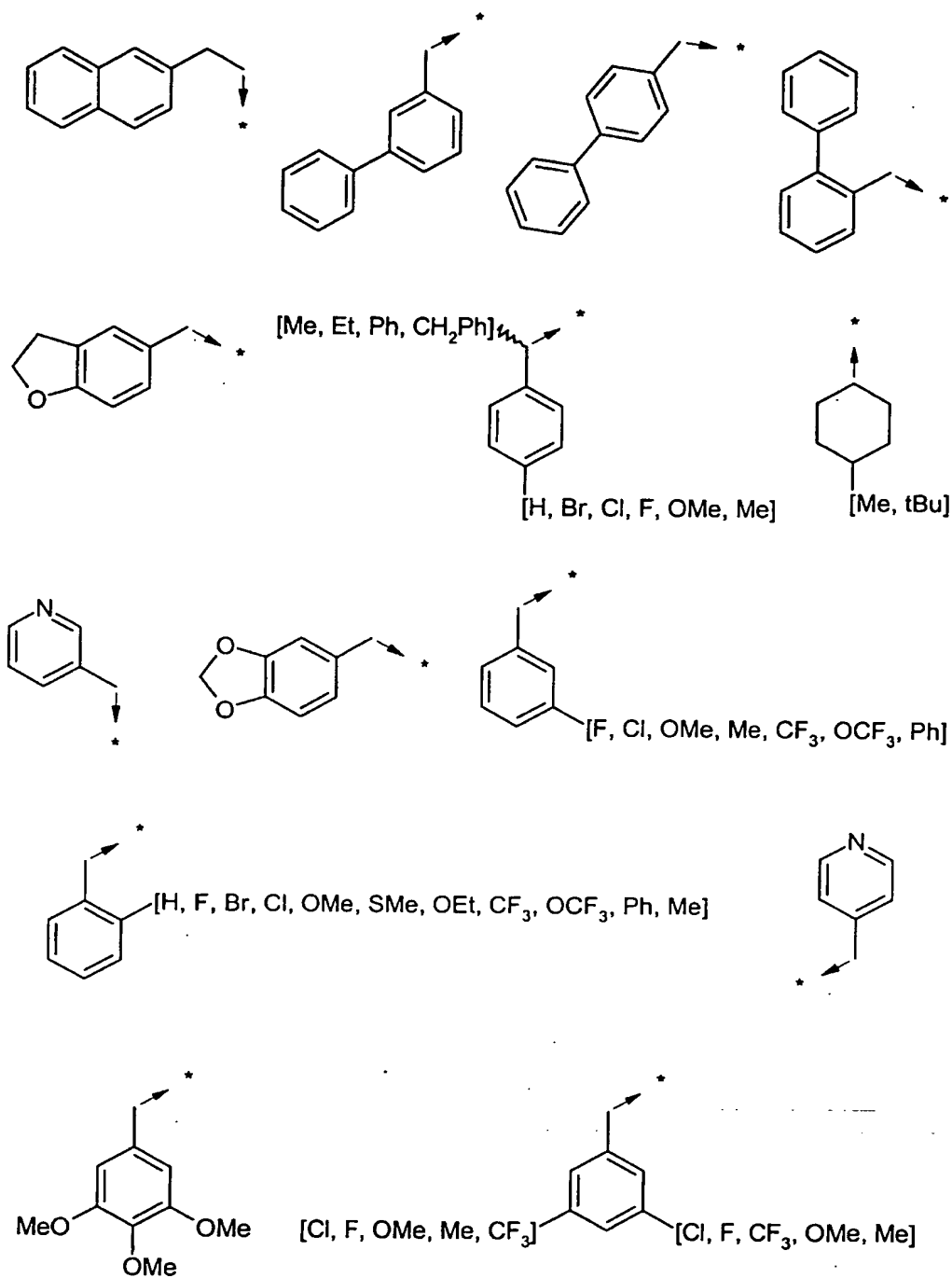
représente le radical benzyle.

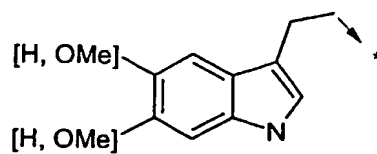
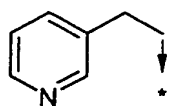
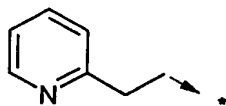
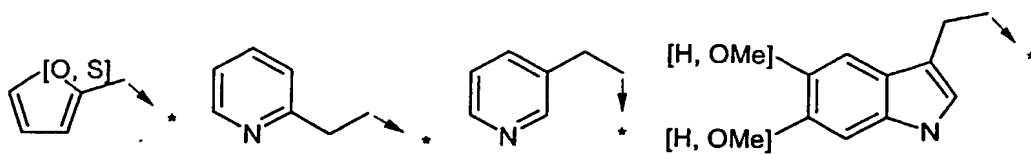
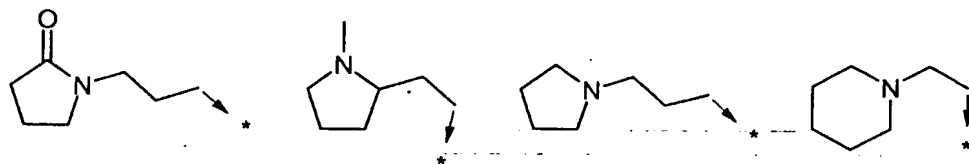
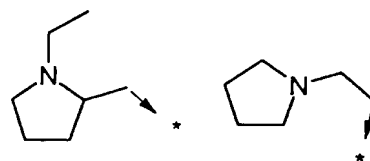
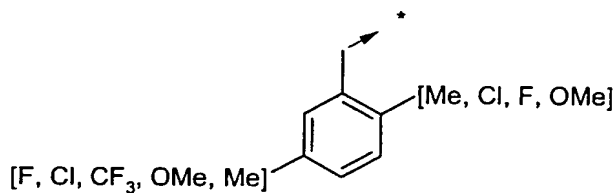
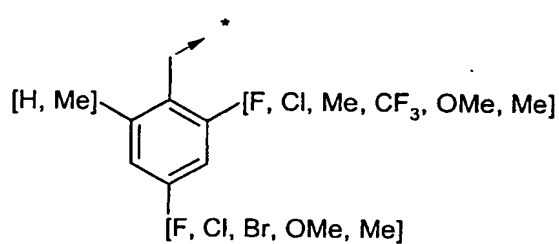
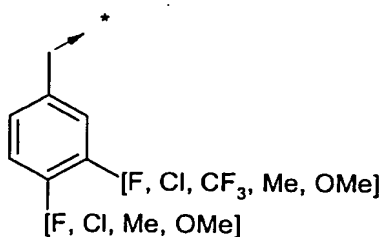
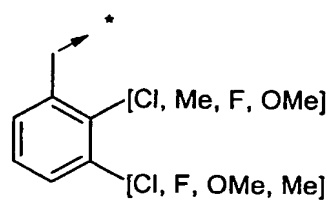
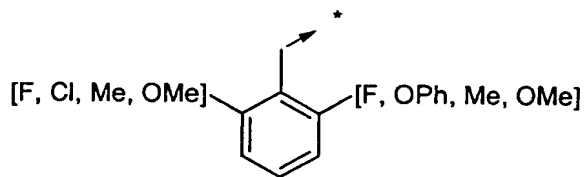
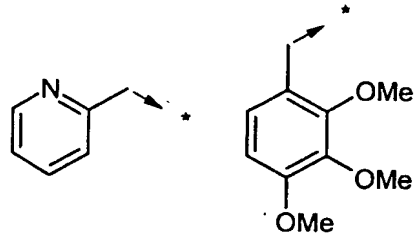
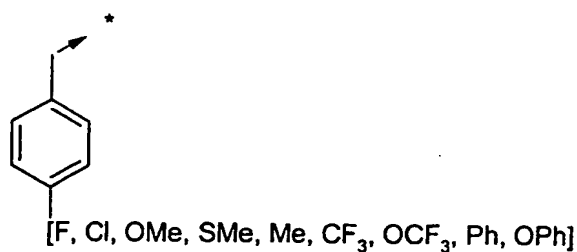
De préférence, les composés de formule générale (I) seront tels que :

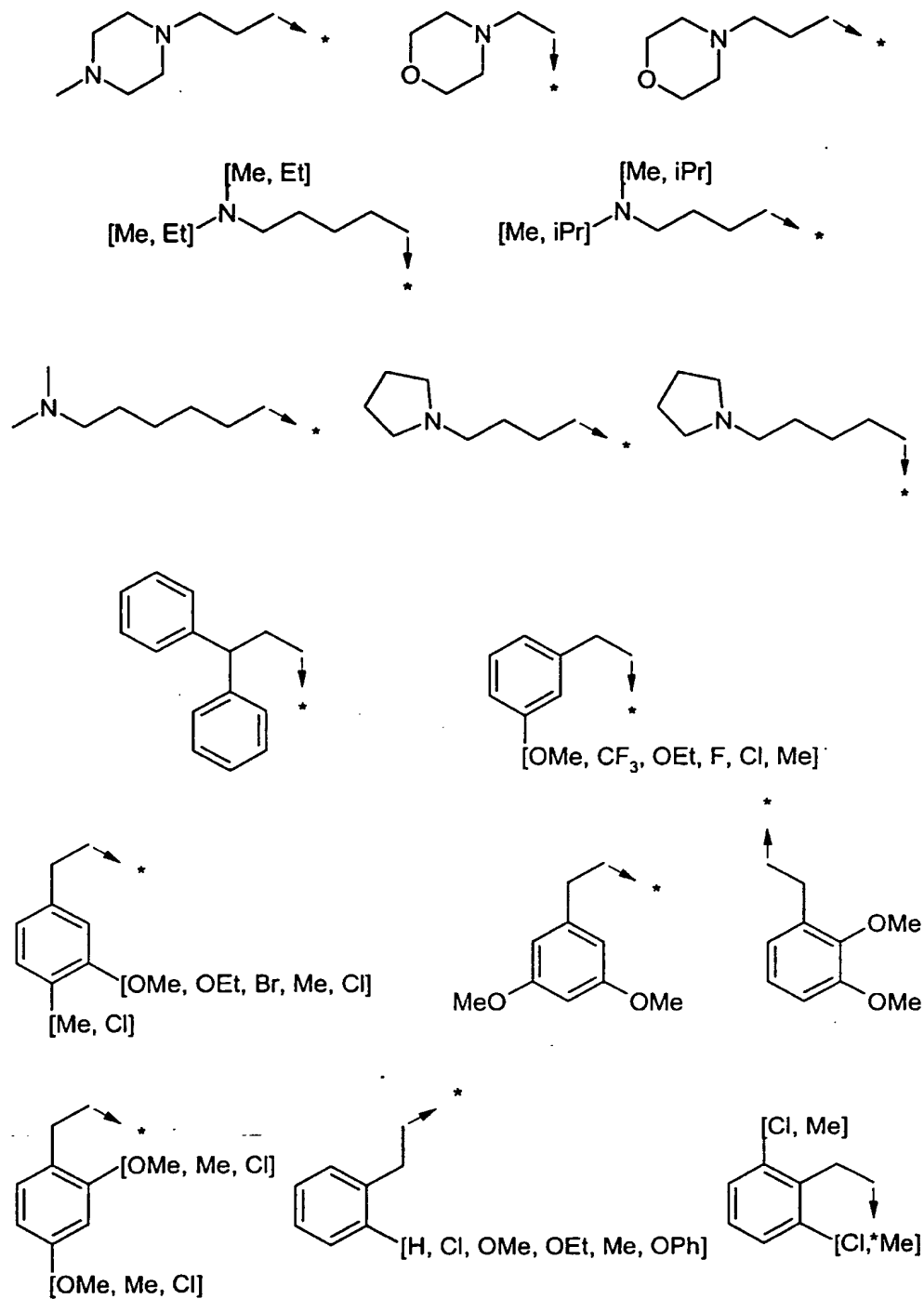
- 20 R1 représente -C(R11)(R12)-CO-R10 ou l'un des radicaux suivants :

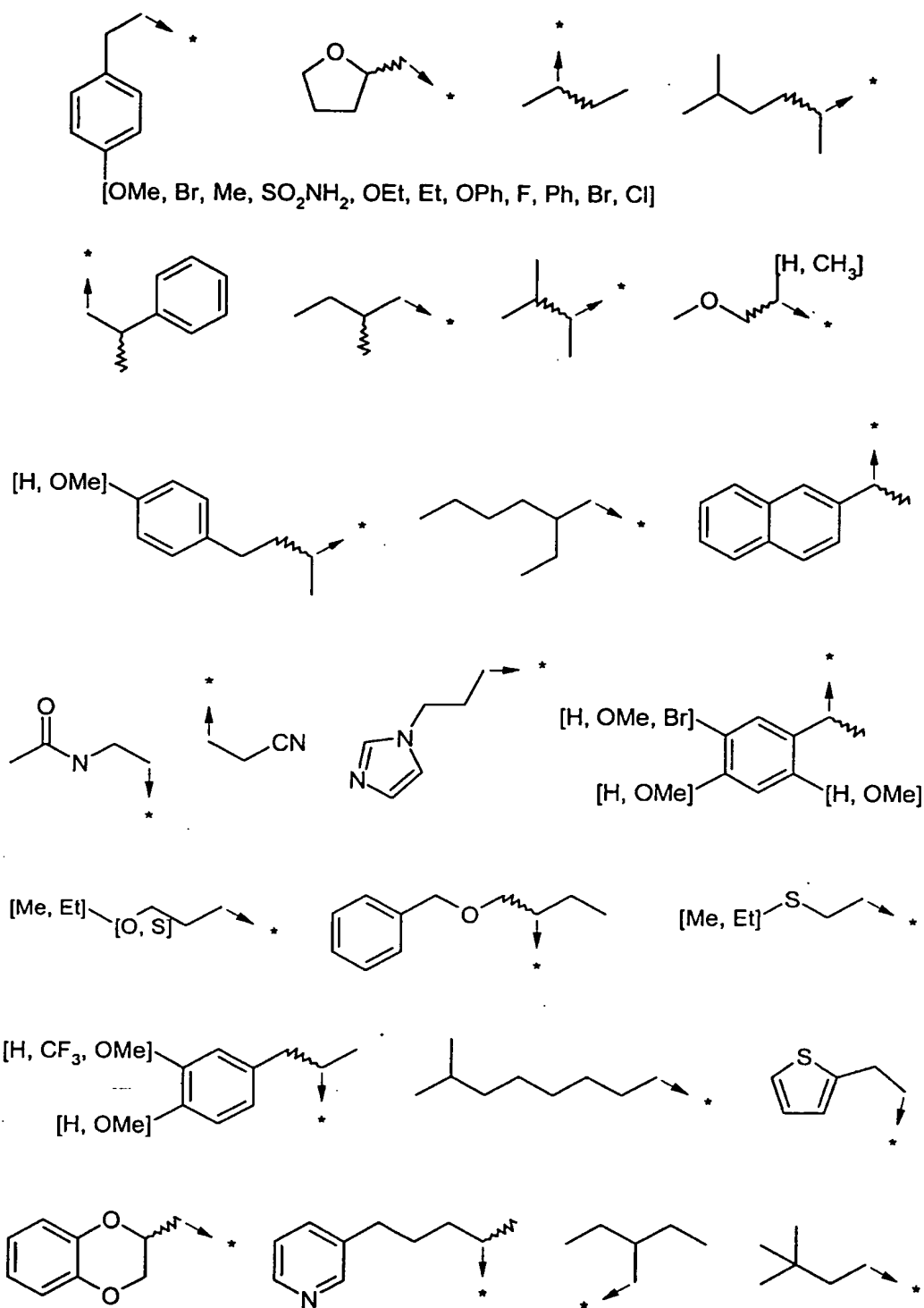


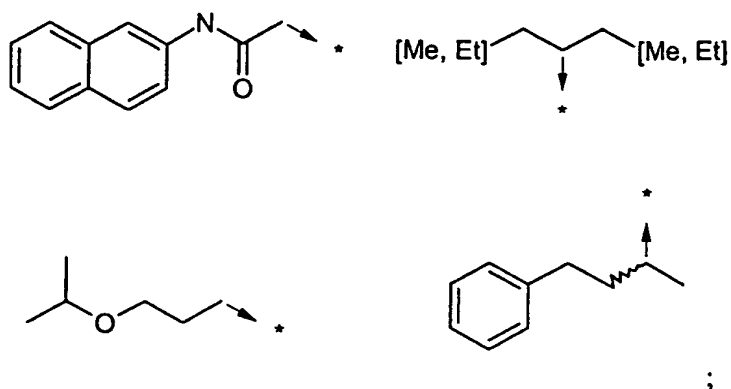




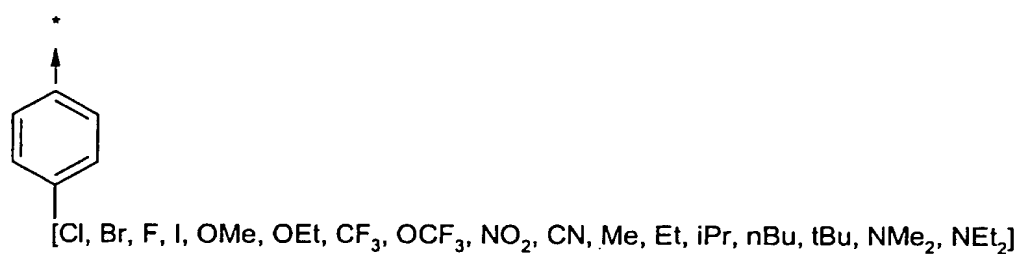
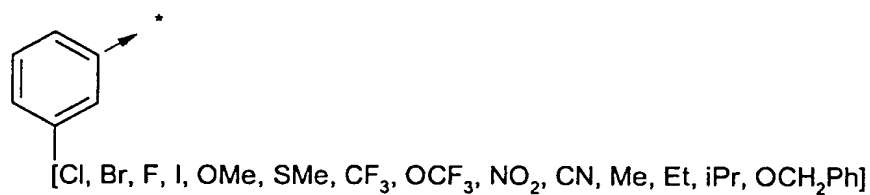
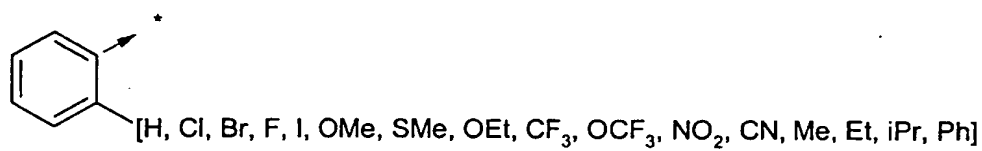


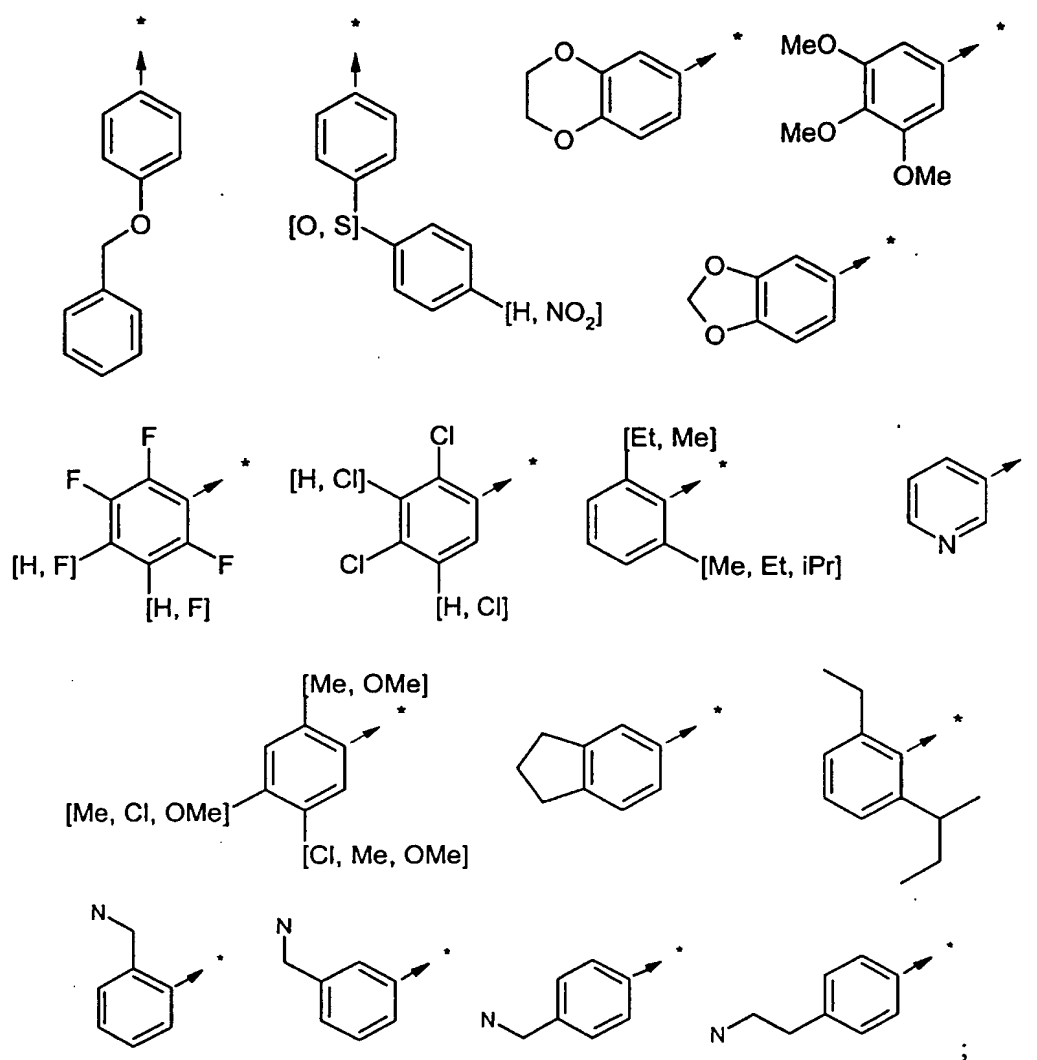




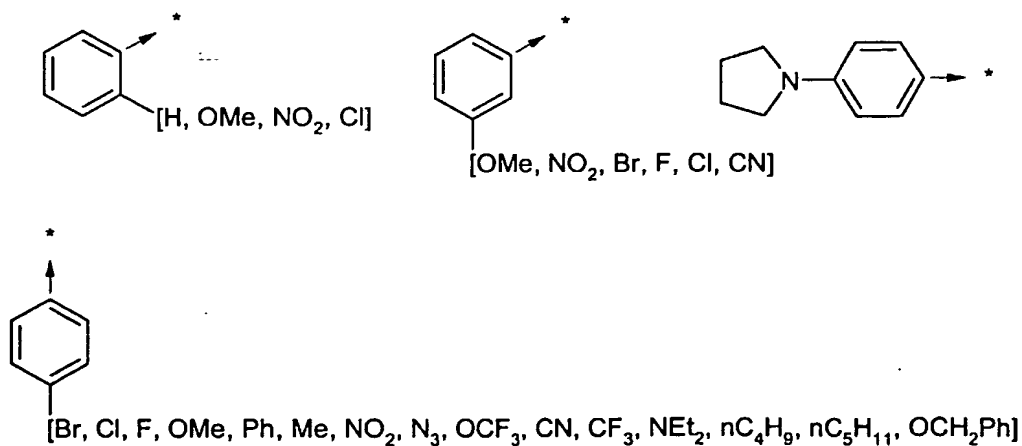


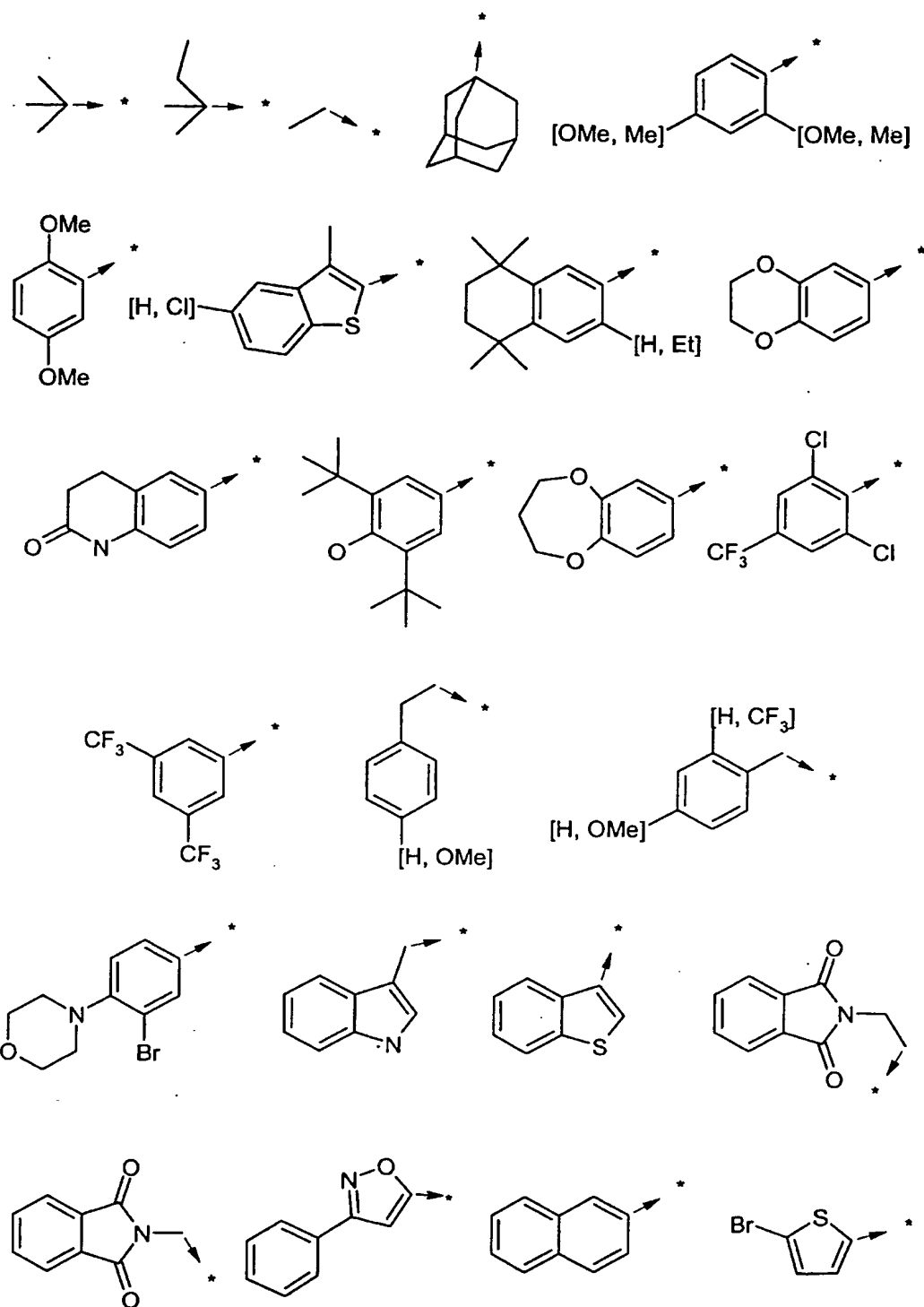
R2 représente l'un des radicaux suivants :

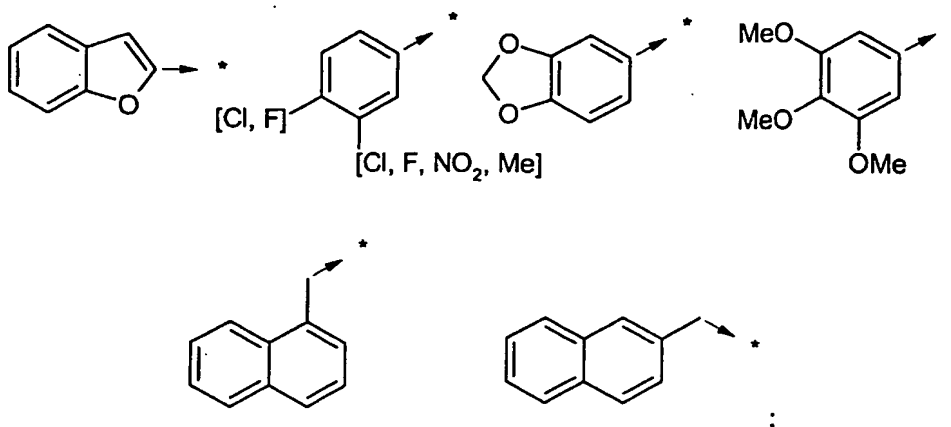




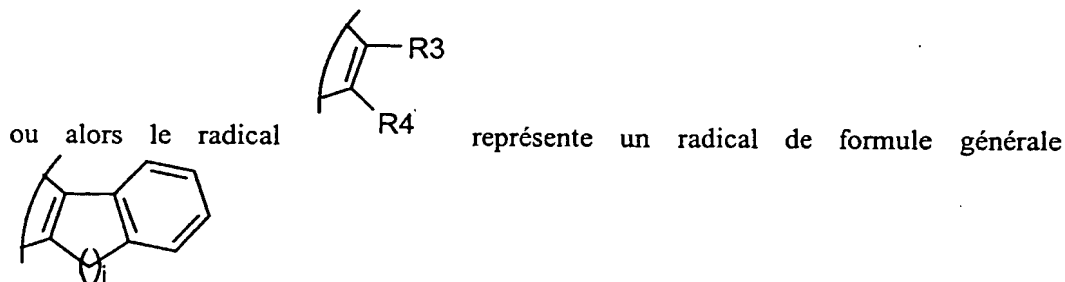
R3 représente CO-R5 ou l'un des radicaux suivants :





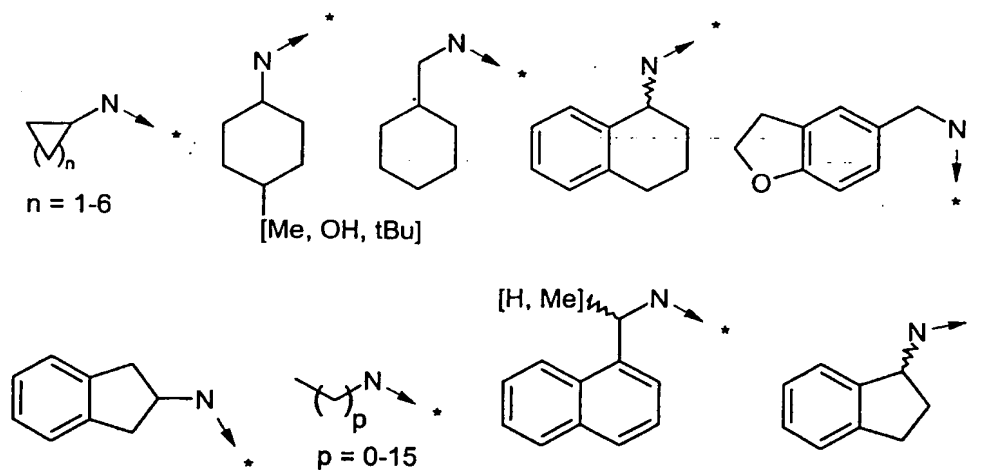


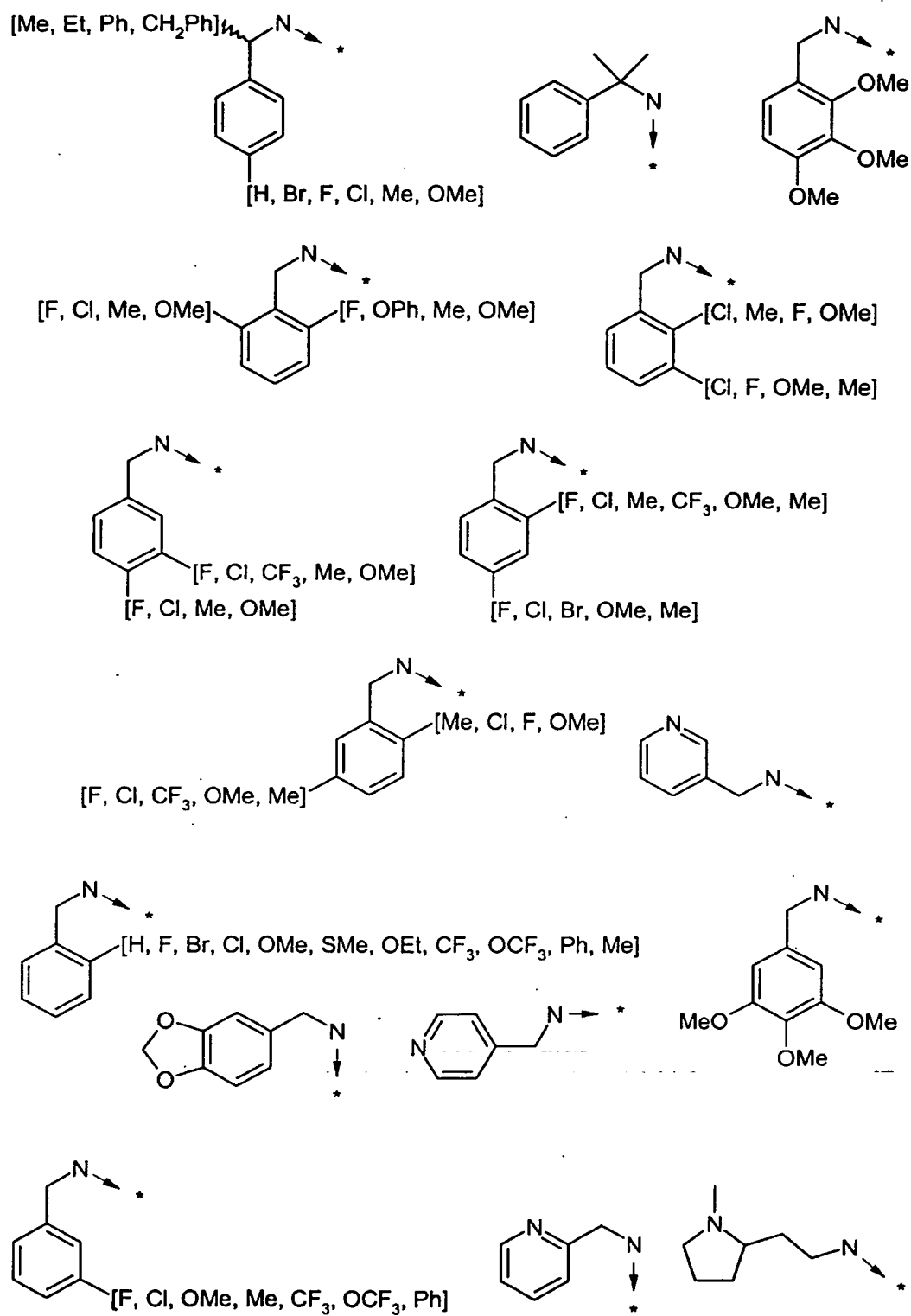
R4 représente H, alkyle, aralkyle carbocyclique ou hétérocyclique éventuellement substitué sur le radical aryle ;

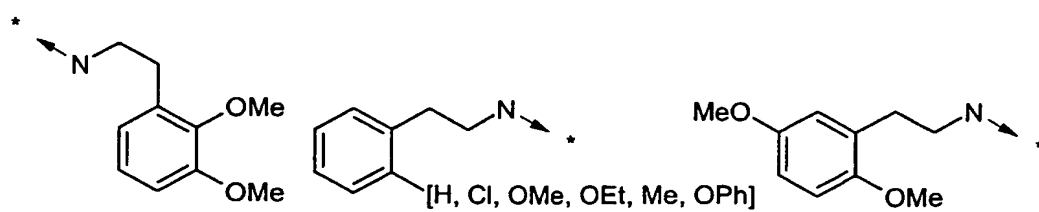
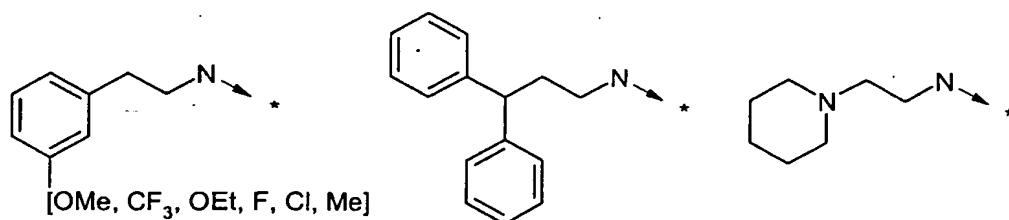
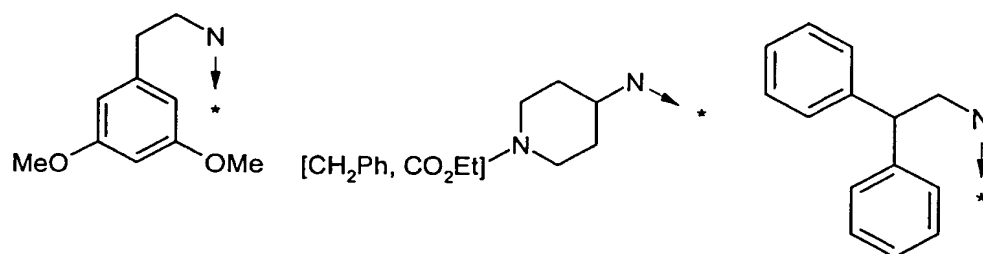
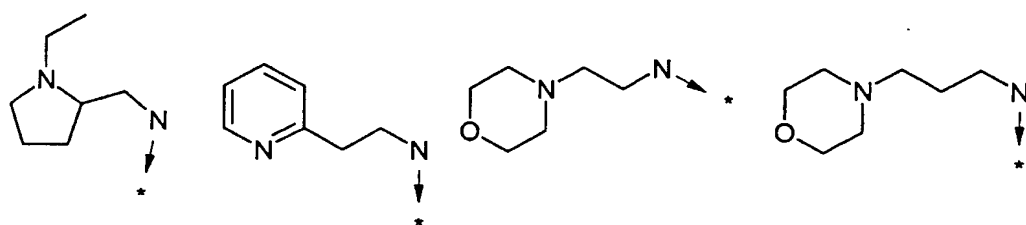
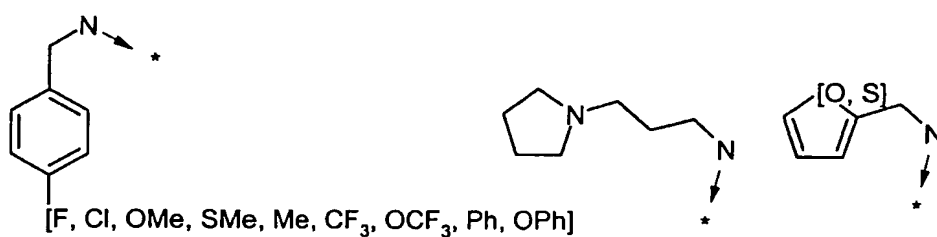
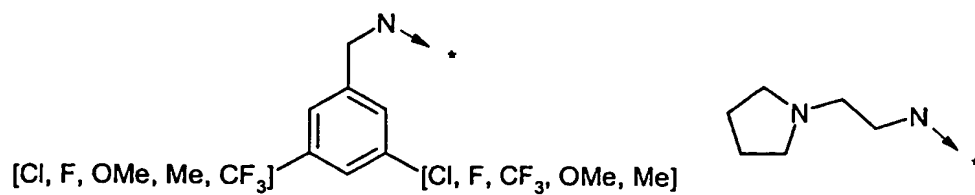


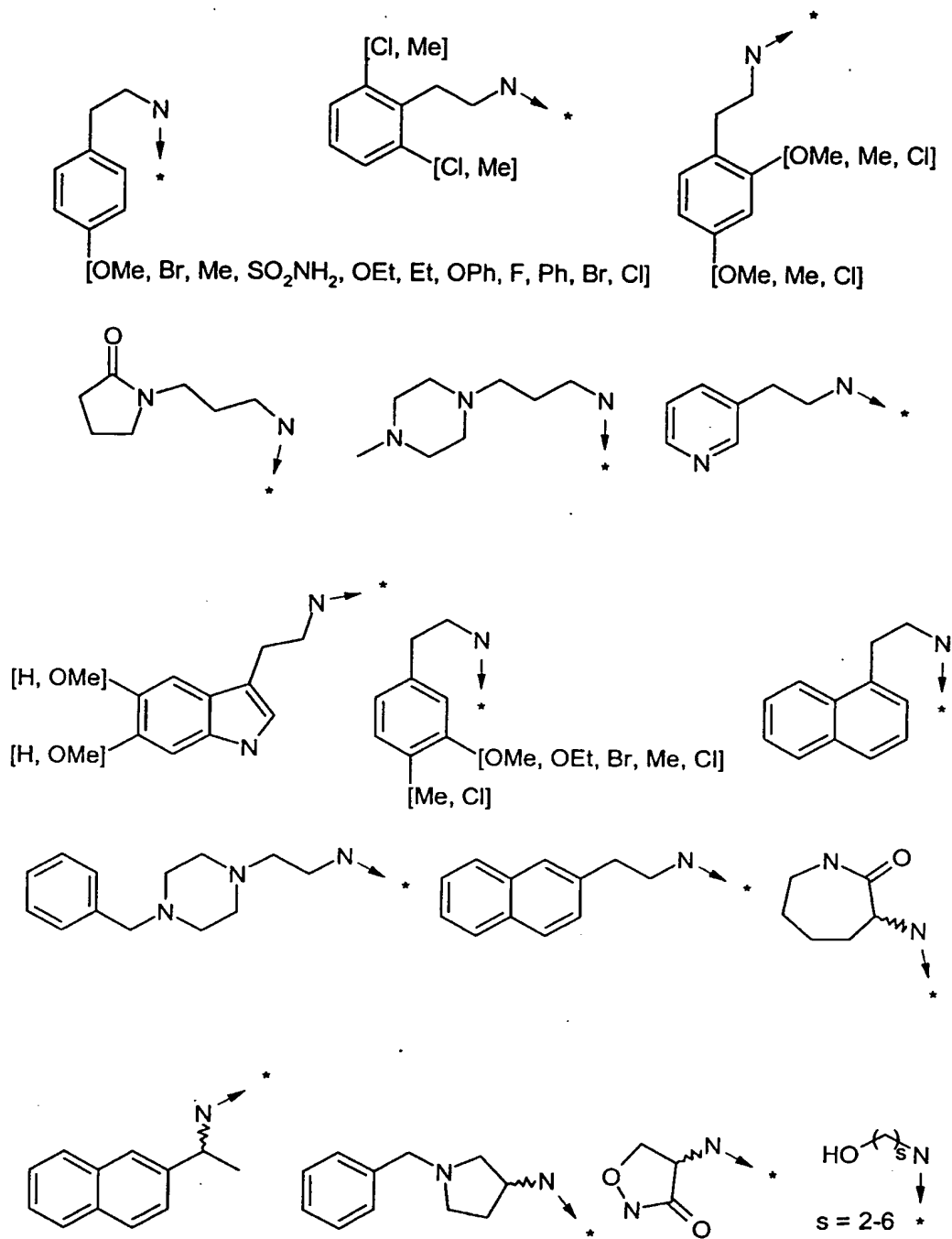
5 dans laquelle i représente un entier de 1 à 3 ;

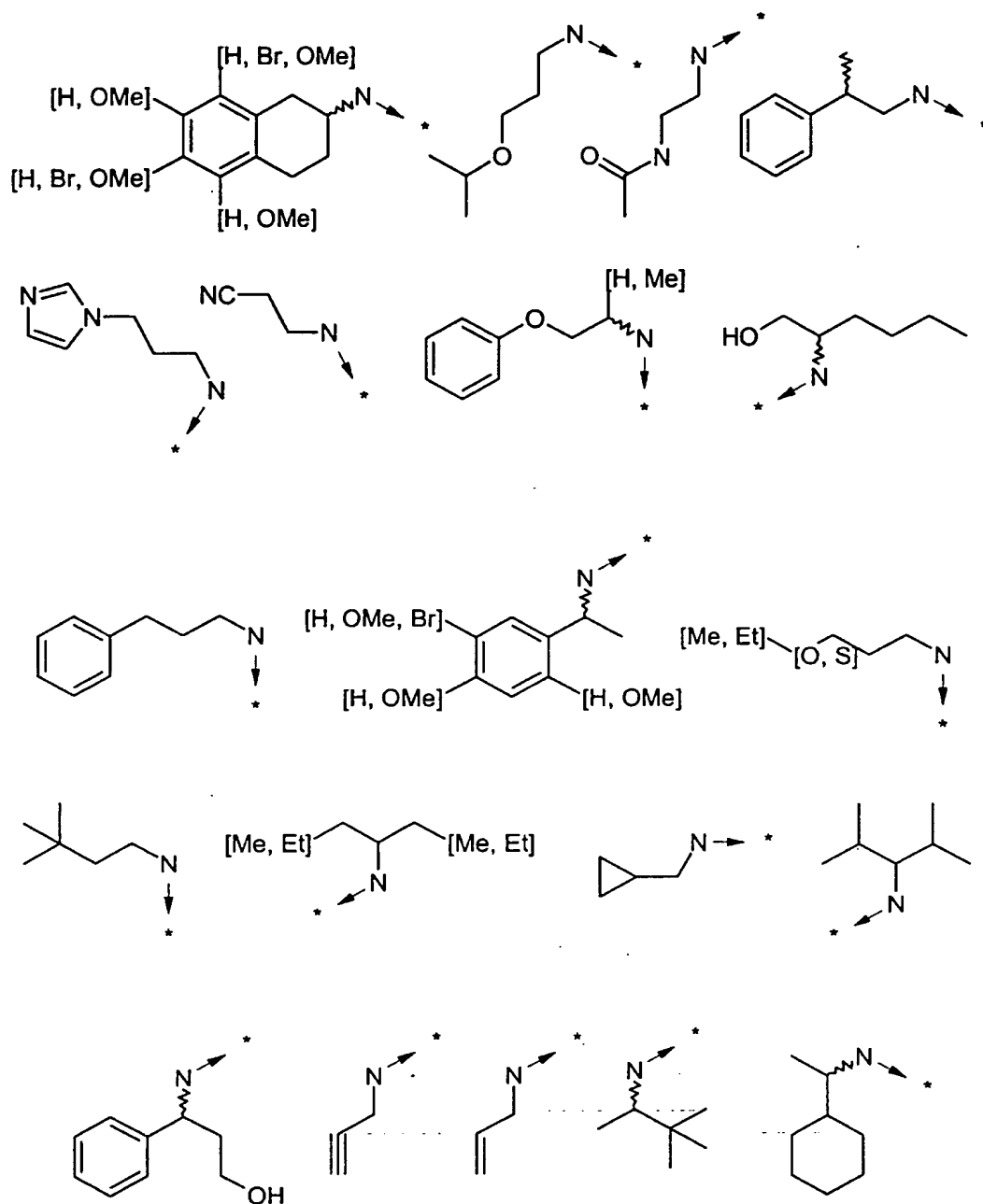
R5 représente l'un des radicaux suivants :

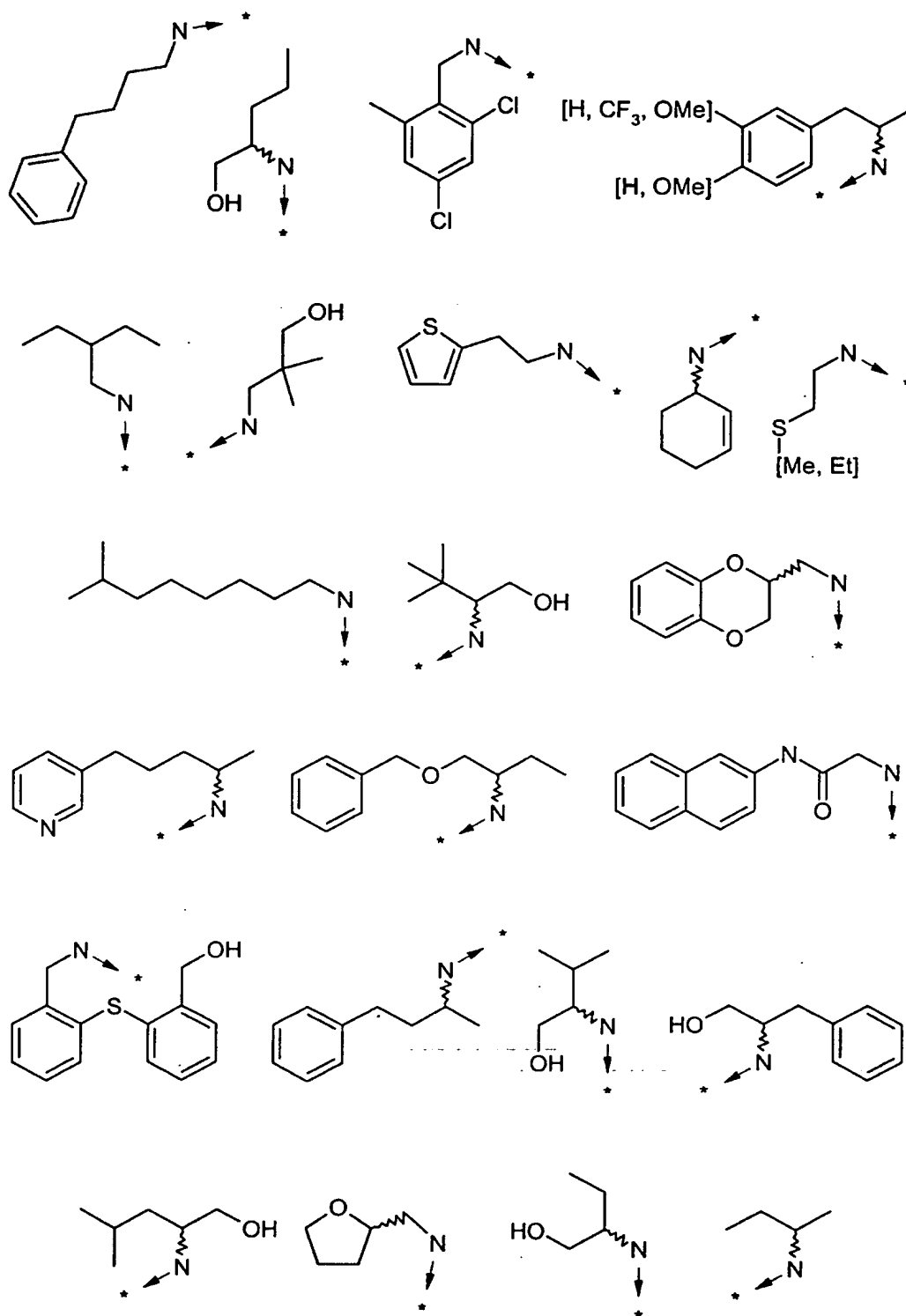


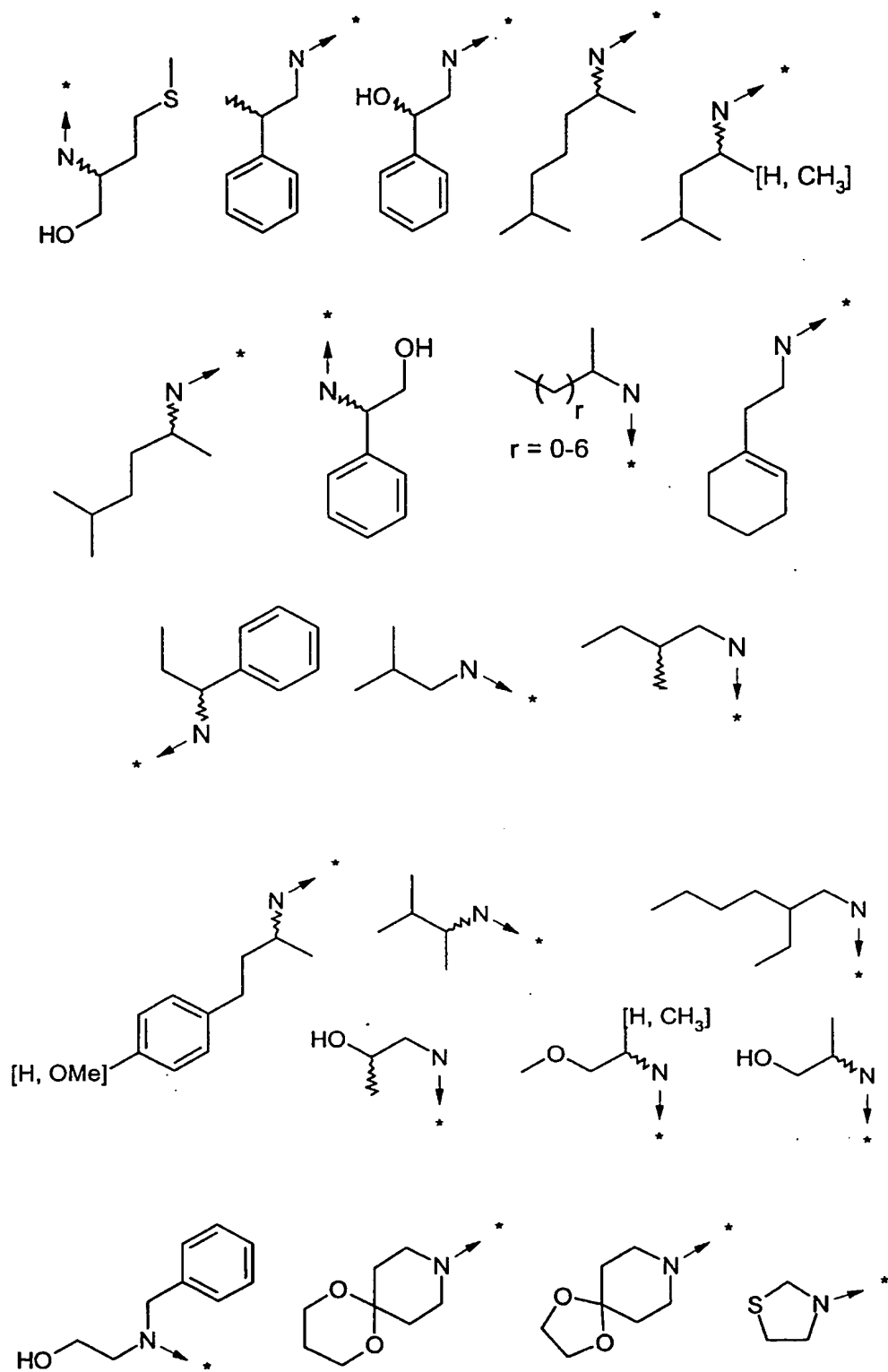


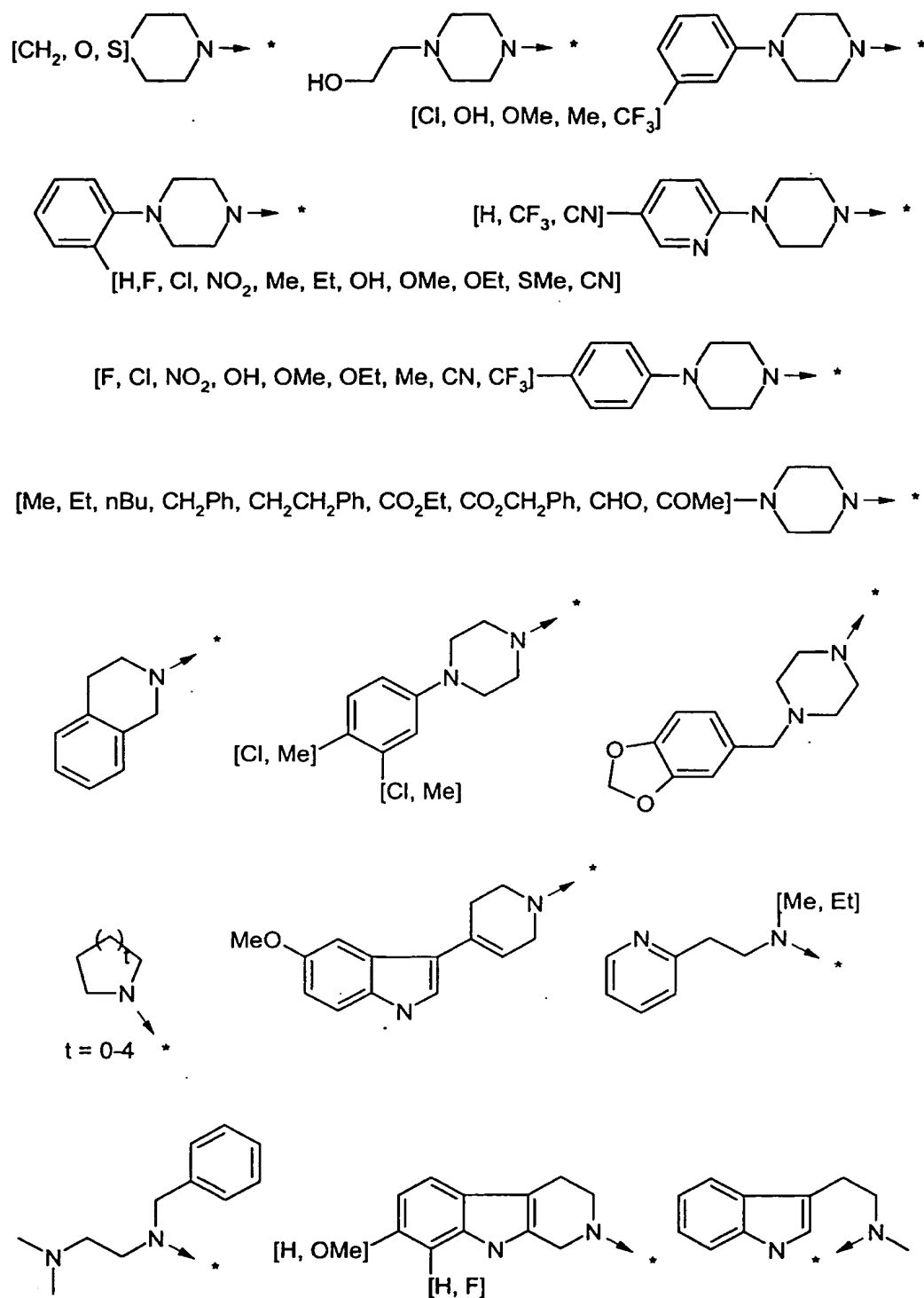


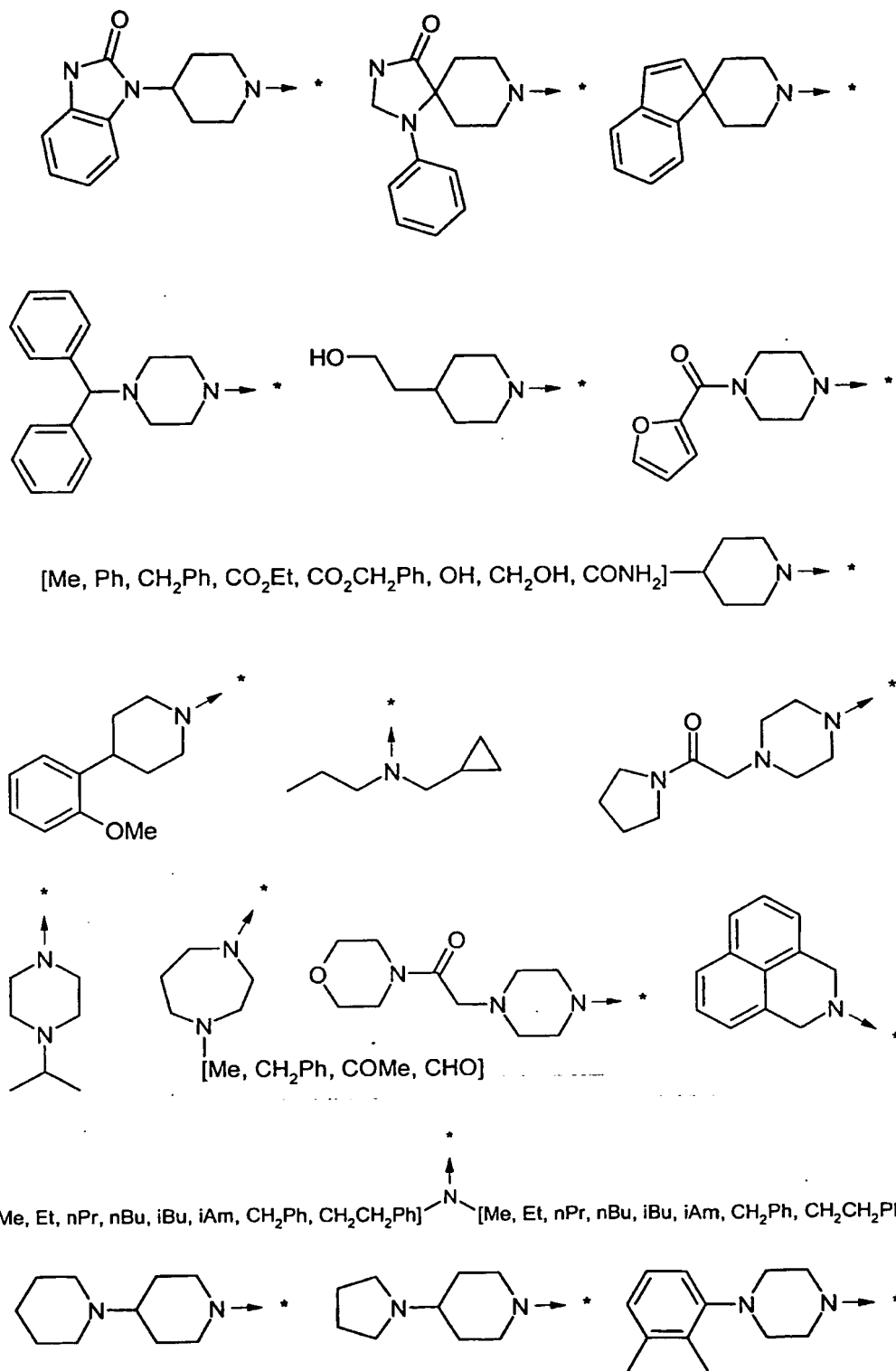


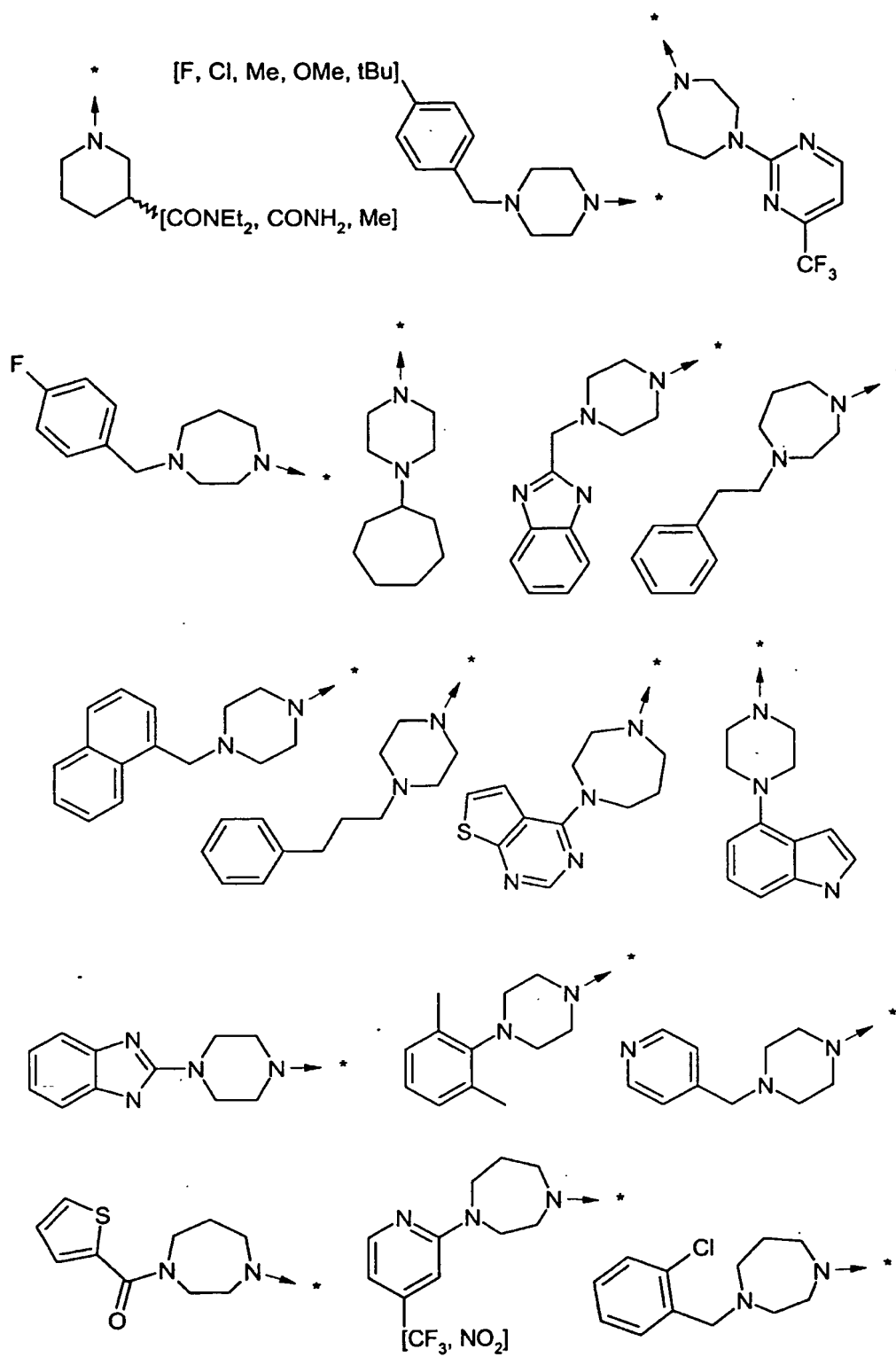


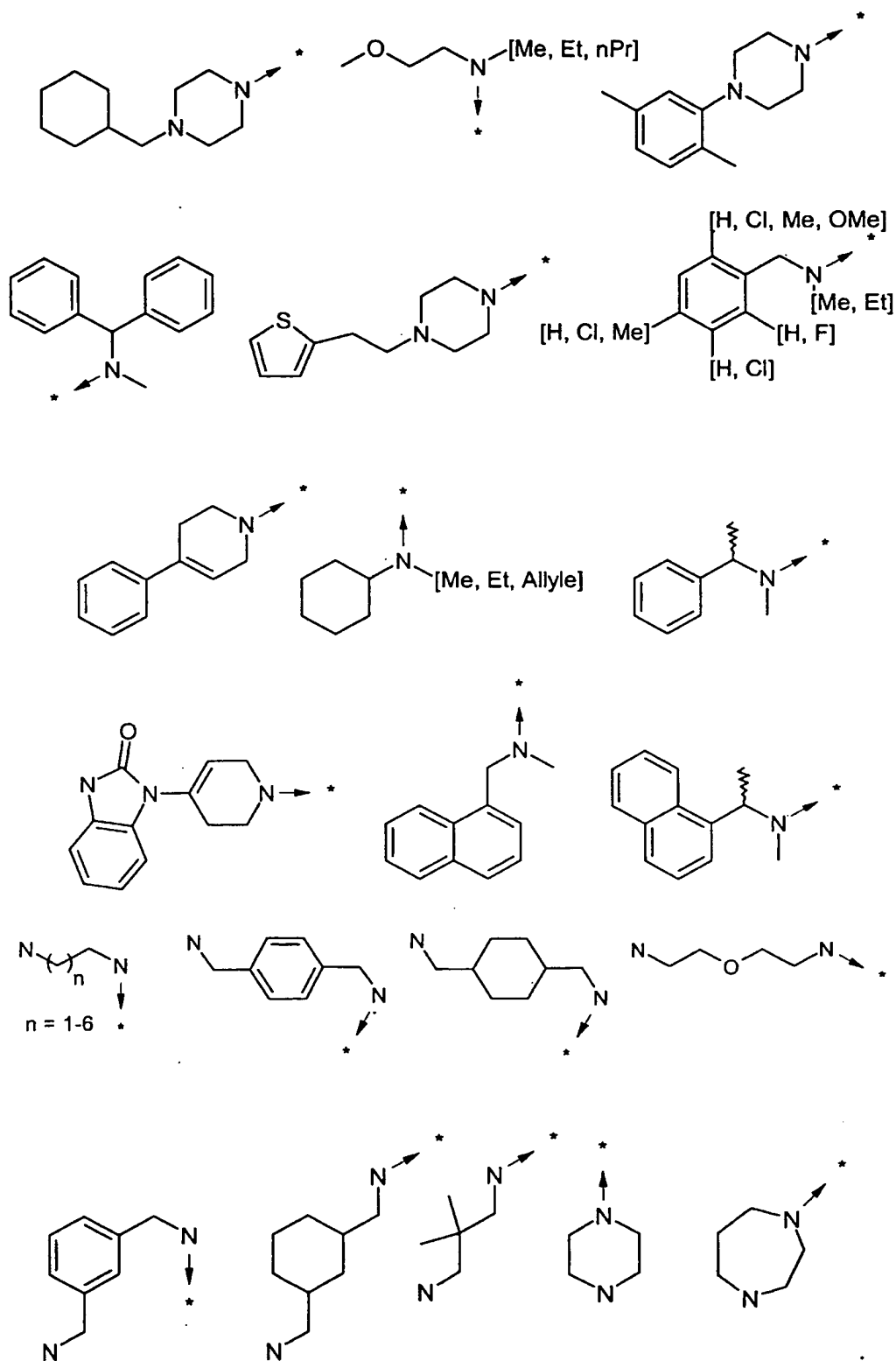




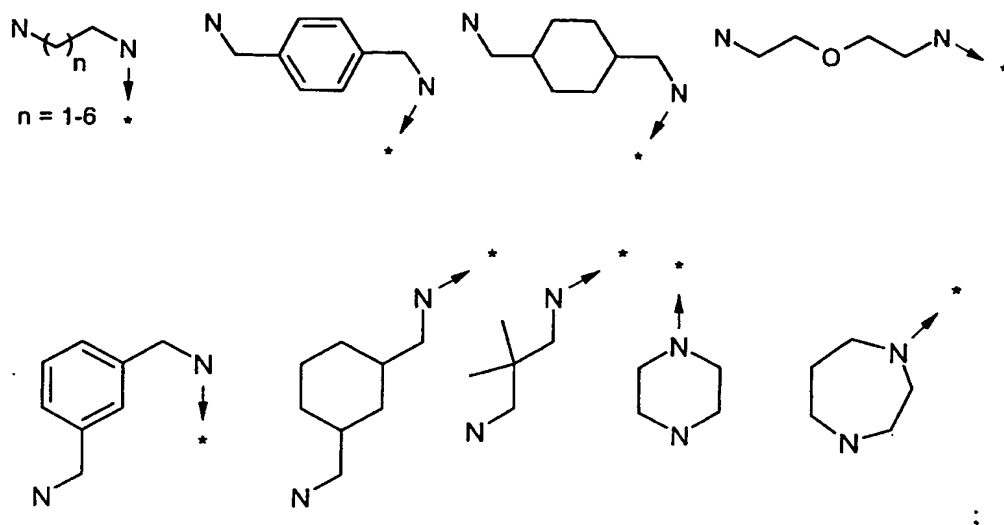






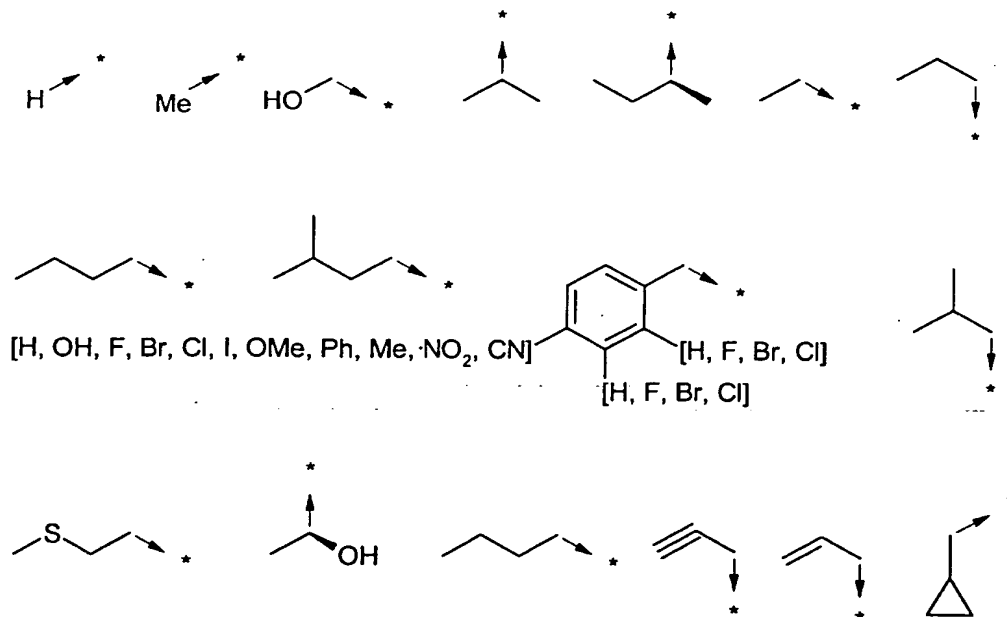


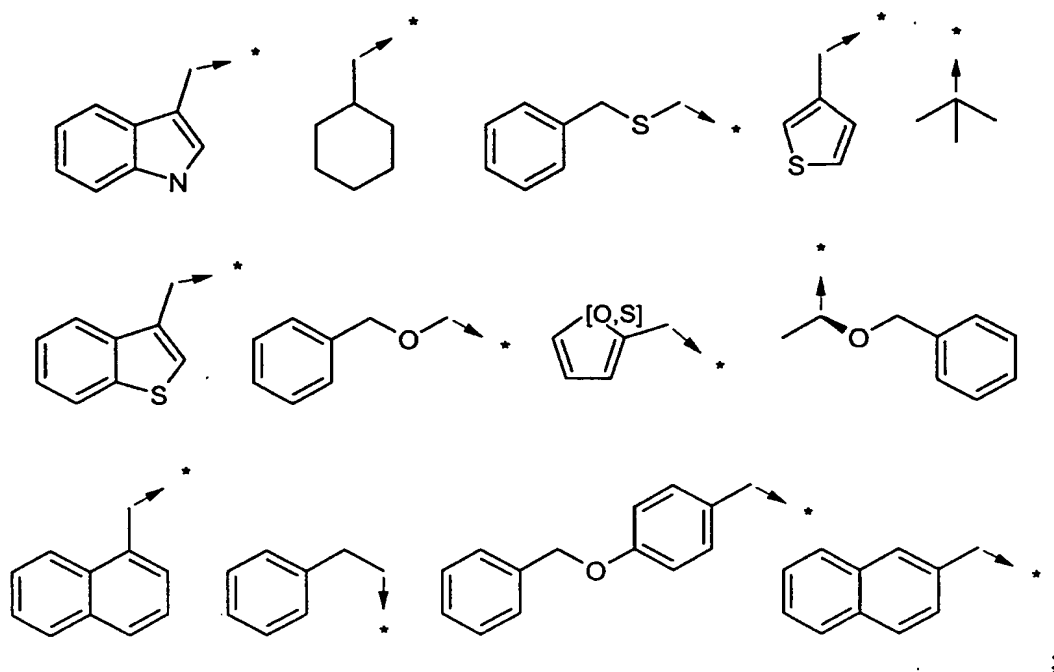
R10. représente l'un des radicaux suivants :



R11 représente H ;

R12 représente l'un des radicaux suivants :

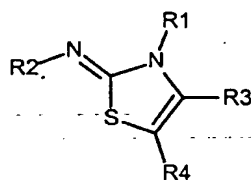




étant entendu que pour R4, lorsque le groupe aryle est substitué, il peut l'être de 1 à 5 fois (outre la liaison qui le relie au reste de la molécule) par des radicaux choisis indépendamment parmi le groupe composé d'un atome halogène et d'un radical alkyle ou alkoxy.

- 5 Les composés de l'invention seront de préférence tels que R4 représente H.

Plus préférentiellement, les composés selon l'invention répondront à la formule générale (II)



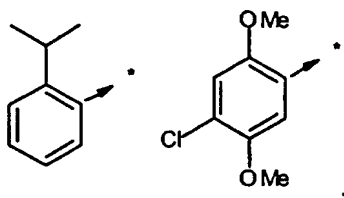
(II)

dans laquelle :

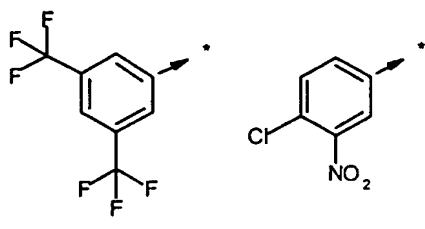
- 10 • soit R1 représente l'un des radicaux ci-après



R2 représente l'un des radicaux ci-après

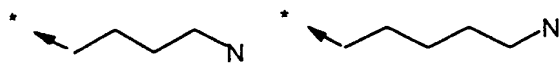


R3 représente l'un des radicaux ci-après

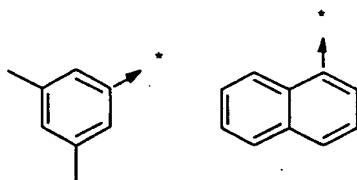


et R4 représente H ;

- soit encore R1 représente l'un des radicaux ci-après



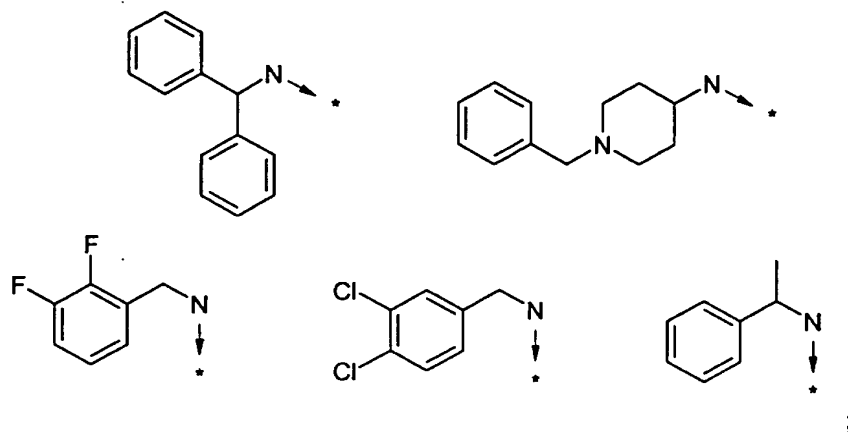
5 R2 représente l'un des radicaux ci-après



R3 représente COR5,

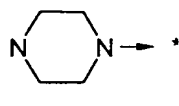
R4 représente H,

et R5 représente l'un des radicaux ci-après



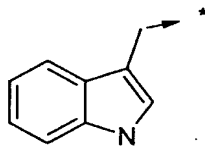
- soit enfin R1 représente le radical $-C(R11)(R12)-CO-R10$ dans lequel

R10 représente le radical

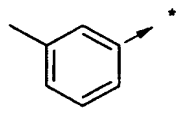


R11 représente H

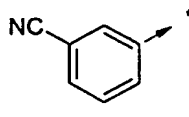
- 5 et R12 représente le radical



R2 représente le radical



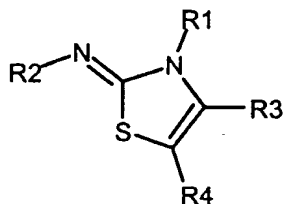
R3 représente le radical



et R4 représente H.

L'invention concerne de plus des procédés de préparation sur support solide des composés de formule générale (I) décrits précédemment (applicables également aux composés correspondants de formule générale (II)).

- 5 Selon l'invention, les composés de formule générale (I)a



(I)a

dans laquelle :

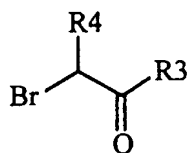
R1 représente un radical $-\text{CH}_2\text{-A1-NH}_2$, dans lequel A1 représente un radical $-(\text{CH}_2)_n-$, $-(\text{CH}_2)_n\text{-O-(CH}_2)_p-$, aralkylène ou cycloalkylalkylène, n et p représentant des entiers de 1 à 6 ;

- 10 R2 et R4 représentent les mêmes radicaux que dans la formule générale (I) ;

et R3 représente les mêmes radicaux que dans la formule générale (I) excepté les radicaux $-\text{CO-R5}$;

peuvent être préparés par exemple par un procédé caractérisé en ce qu'il comprend les étapes successives suivantes :

- 15 1) traitement, dans un solvant aprotique comme le dichlorométhane ou le diméthylformamide, d'une résine p-nitrophénylcarbonate de Wang avec un large excès de diamine symétrique R1-NH_2 ;
- 2) traitement, dans un solvant aprotique comme le dichlorométhane ou le diméthylformamide, de la résine isolée après l'étape 1) avec un isothiocyanate
- 20 aromatique de formule générale R2-N=C=S dans laquelle le radical R2 a la même signification que dans la formule générale (I)a ;
- 3) traitement, dans un solvant aprotique comme le dioxane ou le diméthylformamide, de la résine obtenue à l'étape 2) avec le composé de formule générale (III)



(III)

dans laquelle les radicaux R3 et R4 ont la même signification que dans la formule générale (I)a ;

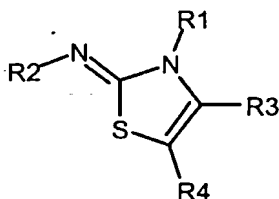
4) clivage de la résine dans des conditions acides ;

5) traitement dans des conditions basiques du produit obtenu après l'étape 4).

- 5 La préparation de la résine p-nitrophénylcarbonate de Wang est décrite plus loin dans la partie intitulée "PREPARATION DES COMPOSES DE L'INVENTION".

De préférence, pour le procédé ci-dessus, on utilisera pour avoir le large excès de l'étape 1) de l'ordre de 10 à 20 équivalents de diamine R1-NH₂. L'étape 1) s'effectuera de préférence à température ambiante. L'étape 3) s'effectue à une température supérieure à la température ambiante, par exemple à une température comprise entre 60 et 90 °C, en utilisant de l'ordre de 2 à 5 équivalents de composé de formule générale (III). Dans l'étape 4), les conditions acides peuvent par exemple être créées en utilisant un mélange dichlorométhane / acide trifluoroacétique à 50 %, lesdites conditions acides étant de préférence maintenues pendant une durée de l'ordre de 1 à 2 heures. Dans l'étape 5), les conditions basiques peuvent par exemple être créées en utilisant une solution saturée en hydrogénocarbonate de sodium ou par élution sur une cartouche d'alumine basique.

Selon une variante de l'invention, les composés de formule générale (I)b



(I)b

dans laquelle :

R1 représente les mêmes radicaux que dans la formule générale (I), excepté les radicaux du type -CH₂-A1-NH₂, dans lequel A1 représente un radical -(CH₂)_n-,

$-(CH_2)_n-O-(CH_2)_p-$, aralkylène ou cycloalkylalkylène, n et p représentant des entiers de 1 à 6, et excepté également les radicaux $-C(R11)(R12)-CO-R10$;

R2 représente un radical aminoalkylphényle ;

R3 représente les mêmes radicaux que dans la formule générale (I) excepté les radicaux
5 $-CO-R5$;

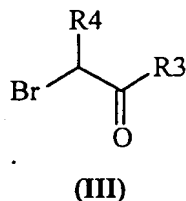
et R4 représente les mêmes radicaux que dans la formule générale (I) ;

peuvent être préparés par exemple par un procédé caractérisé en ce qu'il comprend les étapes successives suivantes :

1) traitement, dans un solvant aprotique comme le dichlorométhane ou le
10 diméthylformamide, d'une résine p-nitrophénylcarbonate de Wang avec un excès d'aminoalkylaniline de formule générale $R2-NH_2$ dans laquelle le radical R2 a la même signification que dans la formule générale (I)b ;

2) traitement, dans un solvant aprotique comme le dichlorométhane ou le
15 diméthylformamide, de la résine isolée après l'étape 1) avec un isothiocyanate de formule générale $R1-N=C=S$ dans laquelle le radical R1 a la même signification que dans la formule générale (I)b ;

3) traitement, dans un solvant aprotique comme le dioxane ou le diméthylformamide, de la résine obtenue à l'étape 2) avec le composé de formule générale (III)



dans laquelle les radicaux R3 et R4 ont la même signification que dans la formule
20 générale (I)b ;

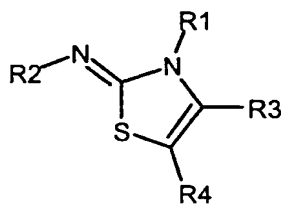
4) clivage de la résine dans des conditions acides ;

5) traitement dans des conditions basiques du produit obtenu après l'étape 4).

De préférence, pour le procédé ci-dessus, on utilisera pour avoir l'excès de l'étape 1) de
l'ordre de 5 à 10 équivalents d'aminoalkylaniline. L'étape 1) s'effectuera de préférence à
25 température ambiante. L'étape 3) s'effectue à une température supérieure à la

température ambiante, par exemple à une température comprise entre 60 et 90 °C, en utilisant de l'ordre de 2 à 5 équivalents de composé de formule générale (III). Dans l'étape 4), les conditions acides peuvent par exemple être créées en utilisant un mélange dichlorométhane / acide trifluoroacétique à 50 %, lesdites conditions acides étant de
 5 préférence maintenues pendant une durée de l'ordre de 1 à 2 heures. Dans l'étape 5), les conditions basiques peuvent par exemple être créées en utilisant une solution saturée en hydrogénocarbonate de sodium ou par élution sur une cartouche d'alumine basique.

Selon une autre variante de l'invention, les composés de formule générale (I)c



(I)c

dans laquelle :

10 R1 représente un radical $-\text{CH}_2\text{-A1-NH}_2$, dans lequel A1 représente un radical $-(\text{CH}_2)_n-$, $-(\text{CH}_2)_n\text{-O-(CH}_2)_p-$, aralkylène ou cycloalkylalkylène, n et p représentant des entiers de 1 à 6 ;

R2 représente les mêmes radicaux que dans la formule générale (I) ;

R3 représente un radical $-\text{CO-R}_5$;

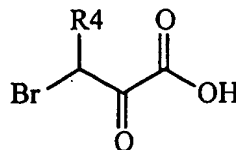
15 et R4 et R5 représentent les mêmes radicaux que dans la formule générale (I) ;

peuvent être préparés par un procédé caractérisé en ce qu'il comprend les étapes successives suivantes :

1) traitement, dans un solvant aprotique comme le dichlorométhane ou le diméthylformamide, d'une résine p-nitrophénylcarbonate de Wang avec un large excès
 20 de diamine symétrique de formule générale R1-NH_2 dans laquelle le radical R1 a la même signification que dans la formule générale (I)c ;

2) traitement, dans un solvant aprotique comme le dichlorométhane ou le diméthylformamide, de la résine isolée après l'étape 1) avec un isothiocyanate aromatique de formule générale R2-N=C=S dans laquelle le radical R2 a la même
 25 signification que dans la formule générale (I)c ;

3) traitement, dans un solvant aprotique comme le dioxane ou le diméthylformamide, de la résine obtenue à l'étape 2) avec l'acide de formule générale (IV)



(IV)

dans laquelle le radical R4 a la même signification que dans la formule générale (I)c ;

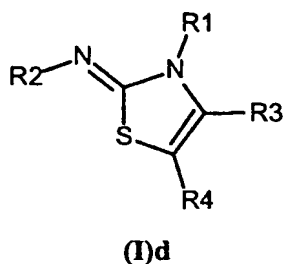
4) couplage peptidique ;

5) 5) clivage de la résine dans des conditions acides ;

6) traitement dans des conditions basiques du produit obtenu après l'étape 5).

De préférence, pour le procédé ci-dessus, on utilisera pour avoir le large excès de l'étape 1) de l'ordre de 10 à 20 équivalents de diamine symétrique. L'étape 1) s'effectuera de préférence à température ambiante. L'étape 3) s'effectue à une température supérieure à la température ambiante, par exemple à une température comprise entre 60 et 90 °C, en utilisant de l'ordre de 2 à 5 équivalents d'acide de formule générale (IV). Le couplage peptidique de l'étape 4) est effectué par exemple dans le DMF avec des agents de couplage comme par exemple le dicyclohexylcarbodiimide (DCC), le diisopropylcarbodiimide (DIC), un mélange DIC/N-hydroxybenzotriazole (HOBt), l'hexafluorophosphate de benzotriazol-1-yl-1,1,3,3-tétraméthyluronium (PyBOP), l'hexafluorophosphate de 2-(1H-benzotriazol-1-yl)-1,1,3,3-tétraméthyluronium (HBTU) ou le tétrafluoroborate de 2-(1H-benzotriazol-1-yl)-1,1,3,3-tétraméthyluronium (TBTU) et des composés aminés. De préférence, les agents de couplage seront utilisés dans des proportions de 4 à 5 équivalents, tout comme les composés aminés, et la réaction aura lieu à une température de l'ordre de la température ambiante pendant une durée de l'ordre de 1 à 24 heures. Dans l'étape 5), les conditions acides peuvent par exemple être créées en utilisant un mélange dichlorométhane / acide trifluoroacétique à 50 %, lesdites conditions acides étant de préférence maintenues pendant une durée de l'ordre de 1 à 2 heures. Dans l'étape 6), les conditions basiques peuvent par exemple être créées en utilisant une solution saturée en hydrogénocarbonate de sodium ou par élution sur une cartouche d'alumine basique.

Selon encore une autre variante, les composés de formule générale (I)d



dans laquelle :

R1 représente les mêmes radicaux que dans la formule générale (I), excepté les radicaux du type $-\text{CH}_2-\text{A1}-\text{NH}_2$, dans lequel A1 représente un radical $-(\text{CH}_2)_n-$, $-(\text{CH}_2)_n-\text{O}-(\text{CH}_2)_p-$, aralkylène ou cycloalkylalkylène, n et p représentant des entiers de 1 à 6, et excepté également les radicaux $-\text{C}(\text{R11})(\text{R12})-\text{CO}-\text{R10}$;

R2 représente un radical aminoalkylphényle ;

R3 représente un radical $-\text{CO}-\text{R5}$;

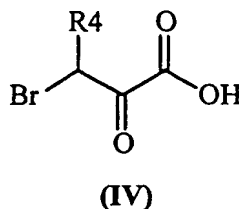
et R4 et R5 représentent les mêmes radicaux que dans la formule générale (I) ;

10 peuvent être préparés par un procédé caractérisé en ce qu'il comprend les étapes successives suivantes :

1) traitement, dans un solvant aprotique comme le dichlorométhane ou le diméthylformamide, d'une résine p-nitrophénylcarbonate de Wang avec un excès d'aminoalkylaniline de formule générale $\text{R2}-\text{NH}_2$ dans laquelle le radical R2 a la même signification que dans la formule générale (I)d ;

2) traitement, dans un solvant aprotique comme le dichlorométhane ou le diméthylformamide, de la résine isolée après l'étape 1) avec un isothiocyanate de formule générale $\text{R1}-\text{N}=\text{C}=\text{S}$ dans laquelle le radical R1 a la même signification que dans la formule générale (I)d ;

20 3) traitement, dans un solvant aprotique comme le dioxane ou le diméthylformamide, de la résine obtenue à l'étape 2) avec l'acide de formule générale (IV)



dans laquelle le radical R4 a la même signification que dans la formule générale (I)d ;

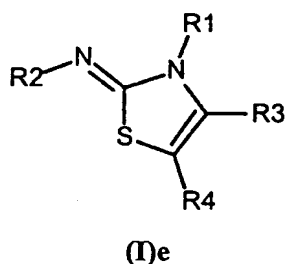
4) couplage peptidique ;

5) clivage de la résine dans des conditions acides ;

6) traitement dans des conditions basiques du produit obtenu après l'étape 5).

- 5 De préférence, pour le procédé ci-dessus, on utilisera pour avoir l'excès de l'étape 1) de l'ordre de 5 à 10 équivalents d'aminoalkylaniline. L'étape 1) s'effectuera de préférence à température ambiante. L'étape 3) s'effectue à une température supérieure à la température ambiante, par exemple à une température comprise entre 60 et 90 °C, en utilisant de l'ordre de 2 à 5 équivalents d'acide de formule générale (IV). Le couplage
- 10 peptidique de l'étape 4) est effectué par exemple dans le DMF avec des agents de couplage comme par exemple le dicyclohexylcarbodiimide (DCC), le diisopropylcarbodiimide (DIC), un mélange DIC/N-hydroxybenzotriazole (HOBt), l'hexafluorophosphate de benzotriazolyloxytris(diméthylamino)phosphonium (PyBOP), l'hexafluorophosphate de 2-(1H-benzotriazol-1-yl)-1,1,3,3-tétraméthyluronium (HBTU)
- 15 ou le tétrafluoroborate de 2-(1H-benzotriazol-1-yl)-1,1,3,3-tétraméthyluronium (TBTU) et des composés aminés. De préférence, les agents de couplage seront utilisés dans des proportions de 4 à 5 équivalents, tout comme les composés aminés, et la réaction aura lieu à une température de l'ordre de la température ambiante pendant une durée de l'ordre de 1 à 24 heures. Dans l'étape 5), les conditions acides peuvent par
- 20 exemple être créées en utilisant un mélange dichlorométhane / acide trifluoroacétique à 50 %, lesdites conditions acides étant de préférence maintenues pendant une durée de l'ordre de 1 à 2 heures. Dans l'étape 6), les conditions basiques peuvent par exemple être créées en utilisant une solution saturée en hydrogénocarbonate de sodium ou par élution sur une cartouche d'alumine basique.

Selon une autre variante, les composés de formule générale (I)e



dans laquelle :

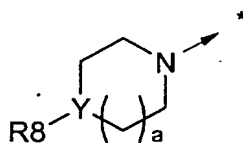
- R1 représente les mêmes radicaux que dans la formule générale (I), excepté les radicaux du type $-\text{CH}_2\text{-A1-NH}_2$, dans lequel A1 représente un radical $-(\text{CH}_2)_n-$, $-(\text{CH}_2)_n\text{-O-(CH}_2)_p-$, aralkylène ou cycloalkylalkylène, n et p représentant des entiers de 1 à 6, et excepté également les radicaux $-\text{C(R11)(R12)-CO-R10}$;

R2 représente les mêmes radicaux que dans la formule générale (I) ;

R3 représente un radical $-\text{CO-R5}$;

R4 représente H ;

- 10 R5 représente un radical $-\text{NH-CH}_2\text{-A1-NH}_2$, dans lequel A1 représente un radical alkylène linéaire ou ramifié comptant de 1 à 6 atomes de carbone, $-(\text{CH}_2)_n\text{-O-(CH}_2)_p-$, aralkylène ou cycloalkylalkylène, n et p représentant des entiers de 1 à 6, ou encore R5 représente le radical N(R6)(R7) répondant à la formule générale suivante :



dans laquelle :

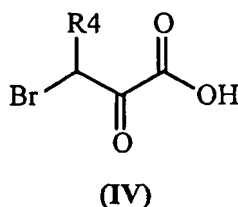
- 15 R8 représente H ;

Y représente N ;

a représente 1 ou 2 ;

peuvent être préparés par un procédé caractérisé en ce qu'il comprend les étapes successives suivantes :

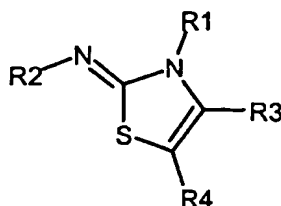
- 1) traitement, dans un solvant aprotique comme le dichlorométhane ou le diméthylformamide, d'une résine p-nitrophénylcarbonate de Wang avec un large excès de diamine symétrique de formule générale R5-H ;
- 2) couplage peptidique avec l'acide de formule générale (IV) sur la résine obtenue à l'étape 1)



- dans laquelle le radical R4 a la même signification que dans la formule générale (I)e ;
- 3) réaction de l'amine primaire de formule générale R1-NH₂ avec l'isothiocyanate de formule générale R2-NCS dans un solvant tel que le diméthylformamide ou le dioxane, R1 et R2 ayant les mêmes significations que dans la formule générale (I)e ;
- 4) addition de la thiourée obtenue à l'étape 3) à la résine obtenue à l'étape 2) et chauffage du mélange ;
- 5) clivage de la résine dans des conditions acides ;
- 6) traitement dans des conditions basiques du produit obtenu après l'étape 5).

- De préférence, pour le procédé ci-dessus, on utilisera pour avoir le large excès de l'étape 1) de l'ordre de 10 à 20 équivalents de diamine R5-H. L'étape 1) s'effectuera de préférence à température ambiante. Le couplage peptidique de l'étape 2) est effectué dans le DMF avec un agent de couplage comme par exemple le mélange DIC/N-hydroxybenzotriazole (HOBt). La réaction de l'étape 3) s'effectue de préférence dans un solvant comme le diméthylformamide ou le dioxane. Lors de l'addition de l'étape 4), on utilisera de préférence de 2 à 5 équivalents de thiourée par équivalent de résine ; de préférence encore, on chauffera à une température supérieure à la température ambiante, par exemple à une température de 40 à 100 °C (notamment à une température d'environ 80 °C) et pendant une durée de 2 à 24 heures. Dans l'étape 5), les conditions acides peuvent par exemple être créées en utilisant un mélange dichlorométhane / acide trifluoroacétique à 50 %, lesdites conditions acides étant de préférence maintenues pendant une durée de l'ordre de 1 à 2 heures. Dans l'étape 6), les conditions basiques peuvent par exemple être créées en utilisant une solution saturée en hydrogénocarbonate de sodium ou par élution sur une cartouche d'alumine basique.

Selon encore une autre variante, les composés de formule générale (I)f



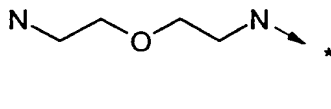
(I)f

dans laquelle :

R1 représente un radical $-C(R_{11})(R_{12})-CO-R_{10}$;

R2, R3 et R4 représentent les mêmes radicaux que dans la formule générale (I) ;

- 5 R10 représente un radical amino(C₂-C₇)alkylamino, ((aminoalkyl)aryl)alkylamino, ((aminoalkyl)cycloalkyl)alkylamino, pipérazinyle, homopipérazinyle, ou R10 représente le radical représenté ci-dessous :



R11 représente H ;

- 10 R12 représente H ou un radical alkyle, (C₃-C₇)cycloalkyle, aralkyle carbocyclique ou hétérocyclique éventuellement substitué, propargyle, allyle, hydroxyalkyle, alkylthioalkyle, arylalkylalkoxyalkyle, arylalkylthioalkoxyalkyle ;

peuvent être préparés par un procédé caractérisé en ce qu'il comprend les étapes successives suivantes :

- 1) traitement, dans un solvant aprotique comme le dichlorométhane ou le diméthylformamide, d'une résine p-nitrophénylcarbonate de Wang avec un large excès de diamine symétrique de formule générale R10-H dans laquelle R10 a la même signification que dans la formule générale (I)f ;
- 15 2) couplage peptidique de la résine obtenue à l'étape 1) avec un acide aminé de formule générale $HOOC-C(R_{11})(R_{12})-NH-Fmoc$ dans laquelle R11 et R12 ont la même signification que dans la formule générale (I)f ;
- 20 3) clivage du groupe Fmoc de la résine obtenue à l'étape 2) ;

4) réaction de la résine obtenue à l'étape 3) avec un isothiocyanate de formule générale R2-NCS dans laquelle R2 a la même signification que dans la formule générale (I)f ;

5) clivage de la résine dans des conditions acides ;

6) traitement dans des conditions basiques du produit obtenu après l'étape 5).

- 5 De préférence, pour le procédé ci-dessus, on utilisera pour avoir le large excès de l'étape 1) de l'ordre de 10 à 20 équivalents de diamine R10-H. L'étape 1) s'effectuera de préférence à température ambiante. Le couplage peptidique de l'étape 2) est effectué par exemple dans le DMF avec des agents de couplage comme par exemple le dicyclohexylcarbodiimide (DCC), le diisopropylcarbodiimide (DIC), un
10 mélange DIC/N-hydroxybenzotriazole (HOBt), l'hexafluorophosphate de benzotriazolyl-oxytris(diméthylamino)phosphonium (PyBOP), l'hexafluorophosphate de 2-(1H-benzotriazol-1-yl)-1,1,3,3-tétraméthyluronium (HBTU) ou le tétrafluoroborate de 2-(1H-benzotriazol-1-yl)-1,1,3,3-tétraméthyluronium (TBTU). La réaction de l'étape 2) s'effectue de préférence à température ambiante et pendant une durée de 1 à 24
15 heures. La déprotection de l'étape 3) peut être effectuée, par exemple, par un mélange de DMF contenant 20% de pipéridine. L'étape 4) sera de préférence effectuée dans un solvant tel que le diméthylformamide ou le dichlorométhane, l'isothiocyanate étant de préférence ajouté en une proportion de 5 à 10 équivalents par équivalent de résine obtenue à l'étape 3). Dans l'étape 5), les conditions acides peuvent par exemple être
20 créées en utilisant un mélange dichlorométhane / acide trifluoroacétique à 50 %, lesdites conditions acides étant de préférence maintenues pendant une durée de l'ordre de 1 à 2 heures. Dans l'étape 6), les conditions basiques peuvent par exemple être créées en utilisant une solution saturée en hydrogénocarbonate de sodium ou par élution sur une cartouche d'alumine basique.
- 25 L'invention a également pour objet, à titre de médicaments, les composés de formules générales (I) et (II) décrits précédemment ou leurs sels pharmaceutiquement acceptables. Elle concerne aussi des compositions pharmaceutiques comprenant lesdits composés ou leurs sels pharmaceutiquement acceptables, et leur utilisation pour la préparation d'un médicament destiné à traiter les états pathologiques ou les maladies
30 dans lesquels un (ou plusieurs) des récepteurs de la somatostatine est (sont) impliqué(s).

En particulier, les composés de formules générales (I) et (II) décrits précédemment ou leurs sels pharmaceutiquement acceptables pourront être utilisés pour la préparation d'un médicament destiné à traiter les états pathologiques ou les maladies choisis parmi le groupe composé des états pathologiques ou des maladies qui suivent : l'acromégalie,
35 les adénomes hypophysaires, la maladie de Cushing, les gonadotrophinomes et les

prolactinomes, les effets secondaires cataboliques des glucocorticoïdes, le diabète insulino-dépendant, la rétinopathie diabétique, la néphropathie diabétique, le syndrome X, le phénomène de Dawn, l'angiopathie, l'angioplastie, l'hyperthyroïdie, le gigantisme, les tumeurs gastroentéropancréatiques endocriniennes dont le syndrome carcinoïde, le

5 VIPome, l'insulinome, la nésidioblastose, l'hyperinsulinémie, le glucagonome, le gastrinome et le syndrome de Zollinger-Ellison, le GRFome ainsi que le saignement aigu des varices œsophagiennes, les ulcères, le reflux gastroœsophagien, le reflux gastroduodénal, la pancréatite, les fistules entérocutanées et pancréatiques mais aussi les

10 diarrhées, les diarrhées réfractaires du syndrome d'immunodépression acquise, la diarrhée chronique sécrétoire, la diarrhée associée avec le syndrome de l'intestin irrité, les diarrhées induites par la chimiothérapie, les troubles liés au peptide libérateur de gastrine, les pathologies secondaires aux greffes intestinales, l'hypertension portale ainsi que les hémorragies des varices chez des malades avec cirrhose, l'hémorragie gastro-intestinale, l'hémorragie de l'ulcère gastroduodénale, le saignement des

15 vaisseaux greffés, la maladie de Crohn, les scléroses systémiques, le dumping syndrome, le syndrome du petit intestin, l'hypotension, la sclérodermie et le carcinome thyroïdien médullaire, les maladies liées à l'hyperprolifération cellulaire comme les cancers et plus particulièrement le cancer du sein, le cancer de la prostate, le cancer thyroïdien ainsi que le cancer pancréatique et le cancer colorectal, les fibroses et plus

20 particulièrement la fibrose du rein, la fibrose du foie, la fibrose du poumon, la fibrose de la peau, également la fibrose du système nerveux central ainsi que celle du nez et la fibrose induite par la chimiothérapie, et, dans d'autres domaines thérapeutiques, les céphalées y compris les céphalées associées aux tumeurs hypophysaires, les douleurs, les désordres inflammatoires comme l'arthrite, les accès de panique, la chimiothérapie,

25 la cicatrisation des plaies, l'insuffisance rénale résultant d'un retard de croissance, l'hyperlipidémie, l'obésité et le retard de croissance lié à l'obésité, le retard de croissance utérin, la dysplasie du squelette, le syndrome de Noonan, le syndrome d'apnée du sommeil, la maladie de Graves, la maladie polykystique des ovaires, les pseudokystes pancréatiques et ascites, la leucémie, le méningiome, la cachexie

30 cancéreuse, l'inhibition des H pylori, le psoriasis, le rejet chronique des allogreffes ainsi que la maladie d'Alzheimer et enfin l'ostéoporose.

De préférence, les composés de formules générales (I) et (II) décrits précédemment ou leurs sels pharmaceutiquement acceptables pourront être utilisés pour la préparation d'un médicament destinés à traiter les états pathologiques ou les maladies choisis parmi

35 le groupe composé des états pathologiques ou des maladies qui suivent : l'acromégalie, les adénomes hypophysaires ou les tumeurs gastroentéropancréatiques endocriniennes dont le syndrome carcinoïde, et les saignements gastro-intestinaux.

Par sel pharmaceutiquement acceptable, on entend notamment des sels d'addition d'acides inorganiques tels que chlorhydrate, sulfate, phosphate, diphosphate, bromhydrate et nitrate ou d'acides organiques tels que acétate, maléate, fumarate, tartrate, succinate, citrate, lactate, méthane sulfonate, p-toluènesulfonate, pamoate, oxalate et stéarate. Entrent également dans le champ de la présente invention, lorsqu'ils sont utilisables, les sels formés à partir de bases telles que l'hydroxyde de sodium ou de potassium. Pour d'autres exemples de sels pharmaceutiquement acceptables, on peut se référer à "Pharmaceutical salts", *J. Pharm. Sci.* 66:1 (1977).

La composition pharmaceutique peut être sous forme d'un solide, par exemple des poudres, des granules, des comprimés, des gélules, des liposomes ou des suppositoires. Les supports solides appropriés peuvent être, par exemple, le phosphate de calcium, le stéarate de magnésium, le talc, les sucres, le lactose, la dextrine, l'amidon, la gélatine, la cellulose, la cellulose de méthyle, la cellulose carboxyméthyle de sodium, la polyvinylpyrrolidone et la cire. Les suspensions comprendront en particulier les suspensions de microparticules à libération prolongée chargées en principe actif (notamment des microparticules en polylactide-co-glycolide ou PLGA - cf. par exemple les brevets US 3,773,919, EP 52 510 ou EP 58 481 ou la demande de brevet PCT WO 98/47489), lesquelles permettent l'administration d'une dose journalière déterminée sur une période de plusieurs jours à plusieurs semaines.

Les compositions pharmaceutiques contenant un composé de l'invention peuvent aussi se présenter sous forme liquide, par exemple, des solutions, des émulsions, des suspensions ou des sirops. Les supports liquides appropriés peuvent être, par exemple, l'eau, les solvants organiques tels que le glycérol ou les glycols, de même que leurs mélanges, dans des proportions variées, dans l'eau.

L'administration d'un médicament selon l'invention pourra se faire par voie topique, orale, parentérale, par injection intramusculaire, etc.

La dose d'administration envisagée pour médicament selon l'invention est comprise entre 0,1 mg à 10 g suivant le type de composé actif utilisé.

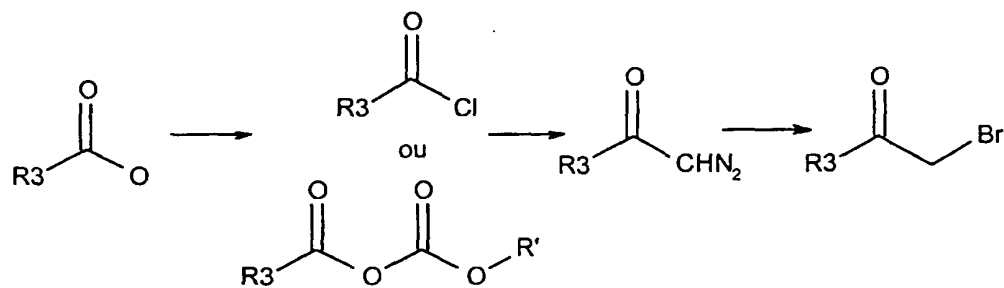
Ces composés peuvent être préparés selon les méthodes décrites ci-après.

PREPARATION DES COMPOSES DE L'INVENTION

I) Préparation d' α -bromocétones

PREMIERE METHODE

Cette méthode s'inspire des protocoles décrits dans les publications suivantes :
 Macholan, L.; Skursky, L. *Chem. Listy* 1955, 49, 1385-1388 ; Bestman, H.J. ; Seng, F.
Chem. Ber. 1963, 96, 465-469 ; Jones, R.G. ; Kornfeld, E.C. ; McLaughlin, K.C. *J. Am.*
Chem. Soc. 1950, 72, 4526-4529 ; Nimgirawath, S. ; Ritchie, E. ; Taylor, W.C. *Aust. J.*
 5 *Chem.* 1973, 26, 183-193).



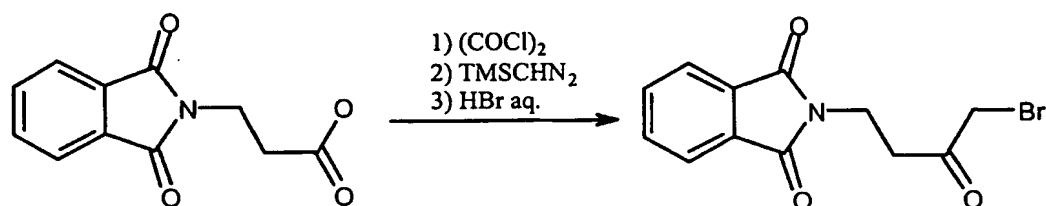
Un acide carboxylique est tout d'abord converti en un chlorure d'acide en utilisant du chlorure d'oxalyle ou de thionyle, ou en l'activant sous forme d'un anhydride à l'aide d'un chloroformiate d'alkyle (par exemple un chloroformiate d'isobutyle, cf. Krantz, A. ;
 Copp, L.J. *Biochemistry* 1991, 30, 4678-4687 ; ou un chloroformiate d'éthyle, cf.
 10 Podlech, J. ; Seebach, D. *Liebigs Ann.* 1995, 1217-1228) en présence d'une base (triéthylamine ou N-méthylmorpholine).

Le groupe carboxyle activé est ensuite transformé en diazocétone à l'aide de diazométhane en solution étherée ou d'une solution commerciale de triméthylsilyldiazométhane (Aoyama, T. ; Shiori, T. *Chem. Pharm. Bull.* 1981, 29,
 15 3249-3255) dans un solvant aprotique comme le diéthyléther, le tétrahydrofurane (THF) ou l'acétonitrile.

La bromation est ensuite effectuée en utilisant un agent bromant comme l'acide hydrobromique dans l'acide acétique, l'acide hydrobromique aqueux dans le diéthyléther ou le dichlorométhane.

Préparation 1

2-(4-bromo-3-oxobutyl)-1H-isoindole-1,3(2H)-dione
(C₁₂H₁₀BrNO₃, MM = 296,12) :

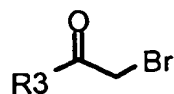



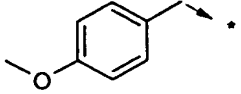
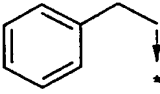
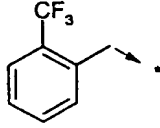

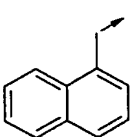
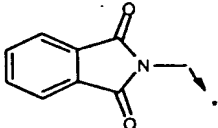
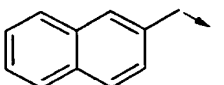
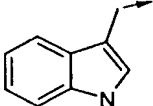
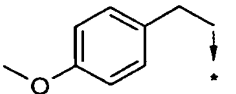
Du chlorure d'oxalyle (5,8 ml ; 66,7 mmol) est ajouté à Pht-β-Ala-OH (9,96g ;
5 44,5 mmol) dissous dans du dichlorométhane (120ml) et 3 gouttes de
diméthylformamide (DMF). Le mélange est agité pendant 3 heures à température
ambiante. Après élimination du solvant, le solide blanc est repris dans un mélange 1:1
de tétrahydrofurane anhydre et d'acétonitrile (200 ml) puis 49 ml de solution de
(triméthylsilyl)diazométhane 2M dans l'hexane (97,9 mmol) sont ajoutés goutte à goutte
10 à 0 °C. Les solvants sont éliminés après une nuit sous agitation à 0 °C. Le solide jaune
pâle est alors dissous dans du dichlorométhane (60 ml) et 12 ml d'acide hydrobromique
aqueux (48%) sont ajoutés goutte à goutte à 0 °C. Le mélange est agité jusqu'à ce que
la température remonte à 15 °C et 50 ml de solution saturée en bicarbonate de sodium
sont ajoutés. La phase organique est lavée avec de la saumure puis séchée sur du sulfate
15 de sodium. La cristallisation dans du diéthyléther permet d'obtenir un solide blanc
(11,39 g ; rendement = 86%).

RMN ¹H (DMSO D₆, 100 MHz, δ) : 7,83 (s, 4H) ; 4,36 (s, 2H, CH₂Br) ; 3,8 (t, 2H,
J = 7,1 Hz, NCH₂) ; 2,98 (t, 2H, J = 6,9 Hz, CH₂CO).

Préparations 2-11

Les composés suivants ont été préparés de façon analogue à la procédure décrite dans la Préparation 1 :

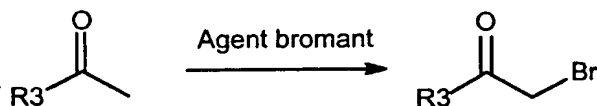


| Prép. | R3 | Rend. (%) | Prép. | R3 | Rend. (%) |
|-------|---|-----------|-------|--|-----------|
| 2* |  | 78 | 7 |  | 67 |
| 3* |  | 60 | 8 |  | 51 |
| 4* |  | 10 | 9 |  | 38 |
| 5* |  | 69 | 10 |  | 22 |
| 6* |  | 41 | 11 |  | 67 |

* Composés déjà décrits dans la littérature.

DEUXIEME METHODE

- 5 Le produit de départ est une arylméthylcétone ou une hétéroarylméthylcétone.



L'arylméthylcétone ou l'hétéroarylméthylcétone de départ est convertie en l' α -bromocétone correspondante en utilisant différents agents bromants :

- CuBr_2 (King, L.C. ; Ostrum, G.K. *J. Org. Chem.* 1964, 29, 3459-3461) chauffé dans de l'acétate d'éthyle ou du dioxane ;
- 5 - du N-bromosuccinimide dans CCl_4 ou de l'acétonitrile aqueux (Morton, H.E.; Leanna, M.R. *Tetrahedron Lett.* 1993, 34, 4481-4484) ;
- du brome dans de l'acide acétique glacial ou de l'acide sulfurique ;
- du tribromure de phényltriméthylammonium (Sanchez, J. P. ; Parcell, R. P. *J. Heterocyclic Chem.* 1988, 25, 469-474) à 20-80 °C dans un solvant aprotique comme le
- 10 THF ou du tribromure de tétrabutylammonium (Kajigaeshi, S.; Kakinami, T.; Okamoto, T.; Fujisaki, S. *Bull. Chem. Soc. Jpn.* 1987, 60, 1159-1160) dans un mélange dichlorométhane/méthanol à température ambiante ;
- agent bromant sur un support polymère comme du perbromure sur une résine Amberlyst A-26, poly(perbromure d'hydrobromure de vinylpyridinium) (Frechet, J. M. J. ; Farrall, M. J. *J. Macromol. Sci. Chem.* 1977, 507-514) dans un solvant protique
- 15 comme le méthanol à environ 20-35 °C pendant environ 2-10 h.

Préparation 12

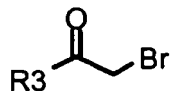
1-(1-benzofuran-2-yl)-2-bromo-1-éthanone
($\text{C}_{10}\text{H}_7\text{BrO}_2$, MM = 239,06) :



- 20 A une solution de (benzofuran-2-yl)méthylcétone (2 g ; 12,5 mmol) dans du méthanol (40 ml) est ajouté un polymère de perbromure d'hydrobromure de pyridine (8,75 g ; 17,5 mmol ; 1,4 équivalent). Le mélange résultant est agité à température ambiante pendant 7 heures et la réaction est arrêtée par filtration. Le méthanol est éliminé sous pression réduite et une addition supplémentaire de diéthyléther permet la cristallisation
- 25 du produit attendu (3,6 g ; rendement = 60%).
- RMN ^1H (DMSO D_6 , 100 MHz, δ) : 8,09 (s, 1H) ; 7,98 (d, 1H, $J = 6,6$ Hz) ; 7,75 (d, 1H, $J = 8,4$ Hz) ; 7,58 (t, 1H, $J = 8,4$ Hz) ; 7,4 (t, 1H, $J = 7$ Hz) ; 4,83 (s, 2H, CH_2Br).

Préparations 8-12

Les composés suivants ont été préparés de façon analogue à la procédure décrite dans la Préparation 12 :

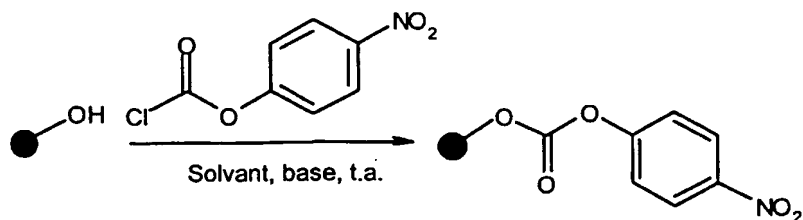


| Prép. | R3 | Durée de réaction (h) | Rendt. (%) |
|-------|----|--------------------------|------------|
| 13* | | 8 | 78 |
| 14* | | 2 | 62 |
| 15* | | 10 | 56 |
| 16* | | 2 | 53 |
| 17* | | 3 | 95 |
| 18 | | 8 | 27 |

* Composé déjà décrit dans la littérature.

II) Synthèse de 2-arylimino-2,3-dihydrothiazoles via synthèse sur phase solide

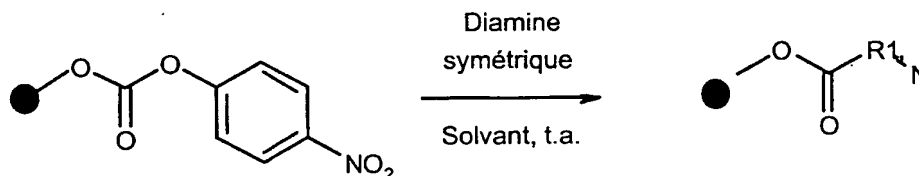
5 Préparation de la résine p-nitrophénylcarbonate de Wang



Cette résine a été préparée à partir de résine de Wang, acquise auprès de Bachem ou Novabiochem avec une charge supérieure à 0,89 mmol/g, par une procédure générale bien décrite (cf. Bunin, B.A. *The Combinatorial Index*, Academic Press, 1998, p. 62-63 ; Dressman, B.A. ; Spangle, L.A. ; Kaldor, S.W. *Tetrahedron Lett.* 1996, 37, 937-940 ; Hauske, J.R. ; Dorff, P. *Tetrahedron Lett.* 1995, 36, 1589-1592 ; Cao, J. ; Cuny, G.D. ; Hauske, J.R. *Molecular Diversity* 1998, 3, 173-179) : de la N-méthylmorpholine ou de la pyridine comme base et du 4-nitrophénylchloroformiate sont successivement ajoutés à une résine de Wang pré-gonflée dans du dichlorométhane (DCM) ou du tétrahydrofurane (THF) à température ambiante. Le mélange est agité pendant la nuit. La résine est alors lavée successivement avec du THF, du diéthyléther et du DCM puis séchée sous pression réduite à 50 °C pendant une nuit.

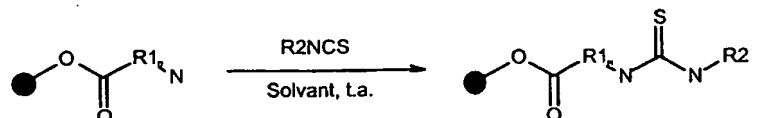
METHODE A

Préparation de diamines symétriques monoprotégées



Procédure générale : comme déjà décrit dans la littérature (Dixit, D.M. ; Leznoff, C.C. *J. C. S. Chem. Comm.* 1977, 798-799 ; Dixit, D.M. ; Leznoff, C.C. *Israel J. Chem.* 1978, 17, 248-252 ; Kaljuste K. ; Unden, A. *Tetrahedron Lett.* 1995, 36, 9211-9214 ; Munson, M.C. ; Cook, A.W. ; Josey, J.A. ; Rao, C. *Tetrahedron Lett.* 1998, 39, 7223-7226), une résine p-nitrophénylcarbonate de Wang est traitée avec un large excès de diamine symétrique (10-20 équivalents), dans un solvant aprotique comme le DCM ou le DMF, pour donner une résine diamine monoprotégée après agitation pendant la nuit.

20 Préparation de résines thiourées



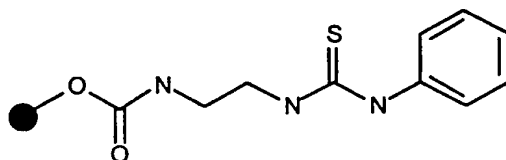
Procédure générale : des isothiocyanates aromatiques et hétéroaromatiques (5-10 équivalents) sont ajoutés (Smith, J. ; Liras, J.L. ; Schneider, S.E. ; Anslyn, E.V. *J.*

Org. Chem. 1996, 61, 8811-8818) à des diamines symétriques monoprotégées dans un solvant comme le DCM ou le DMF agité pendant la nuit à température ambiante. Lavée successivement avec du DMF et du DCM, la résine thiourée est isolée puis séchée sous pression réduite à 50 °C pendant une nuit.

5

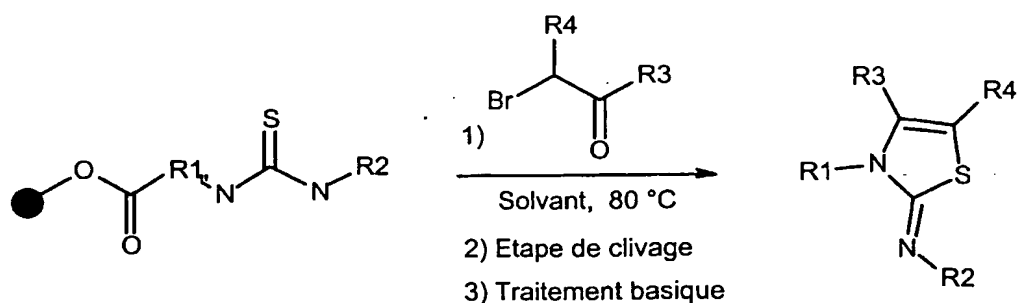
Préparation 19

Résine de Wang carbamate de (phénylaminothiouryl)éthyle



A une résine de Wang N-carbamate d'éthylène diamine (2 g ; 1,72 mmol ; 0,86 mmol/g) gonflée dans du DCM (50 ml) est ajouté du phénylisothiocyanate (1 ml ; 8,5 mmol ; 5 éq.). Après agitation une nuit à température ambiante, la résine est lavée successivement avec du DMF (5 x 20 ml) et du DCM (5 x 20 ml). La réussite du couplage est suivie à l'aide du test ninhydrine de Kaiser (Kaiser, E. ; Colescott, R.L. ; Bossinger, C.D. ; Cook, P.I. *Anal. Biochem.* 1970, 34, 595-598). Une résine jaune pâle (1,79 g) est obtenue avec une charge de 0,648 mmol/g calculée à partir de l'analyse élémentaire du soufre.

15 Synthèse de 2-arylimino-2,3-dihydrothiazoles



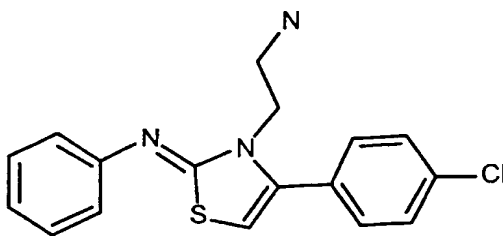
Procédure générale : l'étape de cyclisation régiosélective (Korohoda, M.J. ; Bojarska, A.B. *Polish J. Chem.* 1984, 58, 447-453 ; Ragab, F.A. ; Hussein, M.M. ; Hanna, M.M. ; Hassan, G.S. ; Kenawy, S.A. *Egypt. J. Pharm. Sci.* 1993, 34, 387-400 ; Hassan, H.Y. ; El-Koussi, N.A. ; Farghaly, Z.S. *Chem. Pharm. Bull.* 1998, 46, 863-866) a lieu dans des solvants aprotiques comme le dioxane ou le DMF à 80 °C pendant

20

- 2-3 heures entre la résine thiourée et l' α -bromocétone (2-5 équivalents). La résine est alors lavée successivement avec du DMF, du méthanol et du DCM puis séchée sous pression réduite. La résine 2-arylimino-2,3-dihydrothiazole est clivée dans des conditions acides (DCM/acide trifluoroacétique à 50%) pendant 1-2 heures puis rincée
- 5 avec du DCM. Le solvant est évaporé et la base libre isolée après traitement dans des conditions basiques (solution saturée en hydrogénocarbonate de sodium), extraction avec du DCM ou élution avec du méthanol dans une cartouche d'alumine basique (500 mg, Interchim).

Exemple 1

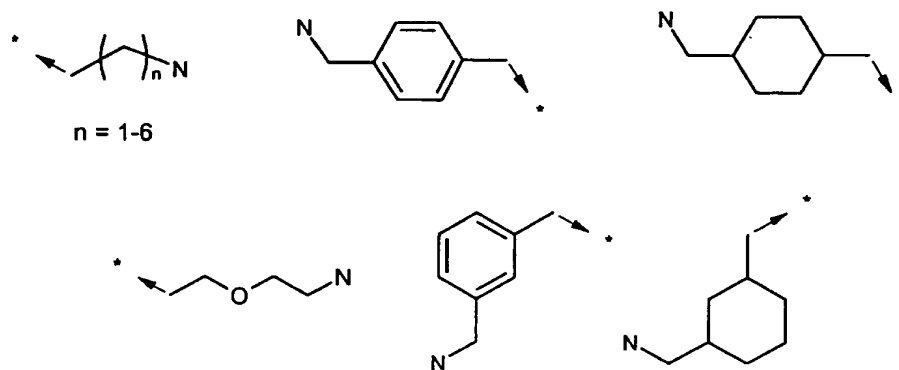
- 10 *N*-[3-(2-aminoéthyl)-4-(4-chlorophényl)-1,3-thiazol-2(3*H*)-ylidène]aniline
(C₁₇H₁₆ClN₃S, MM = 329,86) :



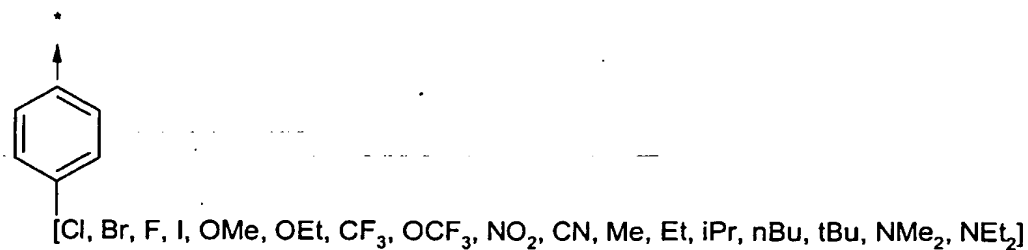
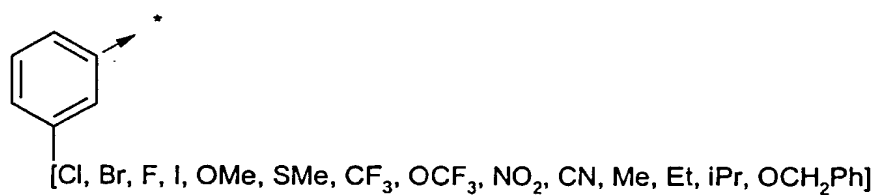
- A la résine thiourée préparée ci-dessus (100 mg ; 64,8 μ mol ; charge de 0,648 mmol/g) est ajoutée de la 2-bromo-4'-chloroacétophénone (30,2 mg ; 129 μ mol ; 2 éq.) dissoute dans du DMF (1 ml). Le mélange est agité 2 heures à 80 °C. La résine est alors
- 15 successivement lavée avec du DMF (3 x 2 ml), du méthanol (3 x 2 ml) et du DCM (3 x 2 ml). L'étape de libération, effectuée dans 1 ml de mélange DCM/acide trifluoroacétique à 50%, donne après une heure et demie d'agitation une huile qui est éluee avec du méthanol dans une cartouche d'alumine basique (500 mg, Interchim). La base libre est isolée de façon quantitative (21,3 mg) sous forme d'une huile jaune ayant
- 20 une pureté mesurée par spectrophotométrie UV de 98% à 220 nm.
- RMN ¹H (DMSO D6, 100 MHz) δ : 7,55 (s, 5H) ; 7,3 (d, 2H, J = 7,1 Hz) ; 6,99 (d, 2H, J = 7,1 Hz) ; 6,21 (s, 1H, H azole) ; 3,74 (t, 2H, J = 6,2 Hz, NCH₂) ; 3,32 (s large, 2H, NH₂) ; 2,72 (t, 2H, J = 6,2 Hz, NCH₂). SM/CL : m/z = 330 (M+H)⁺.

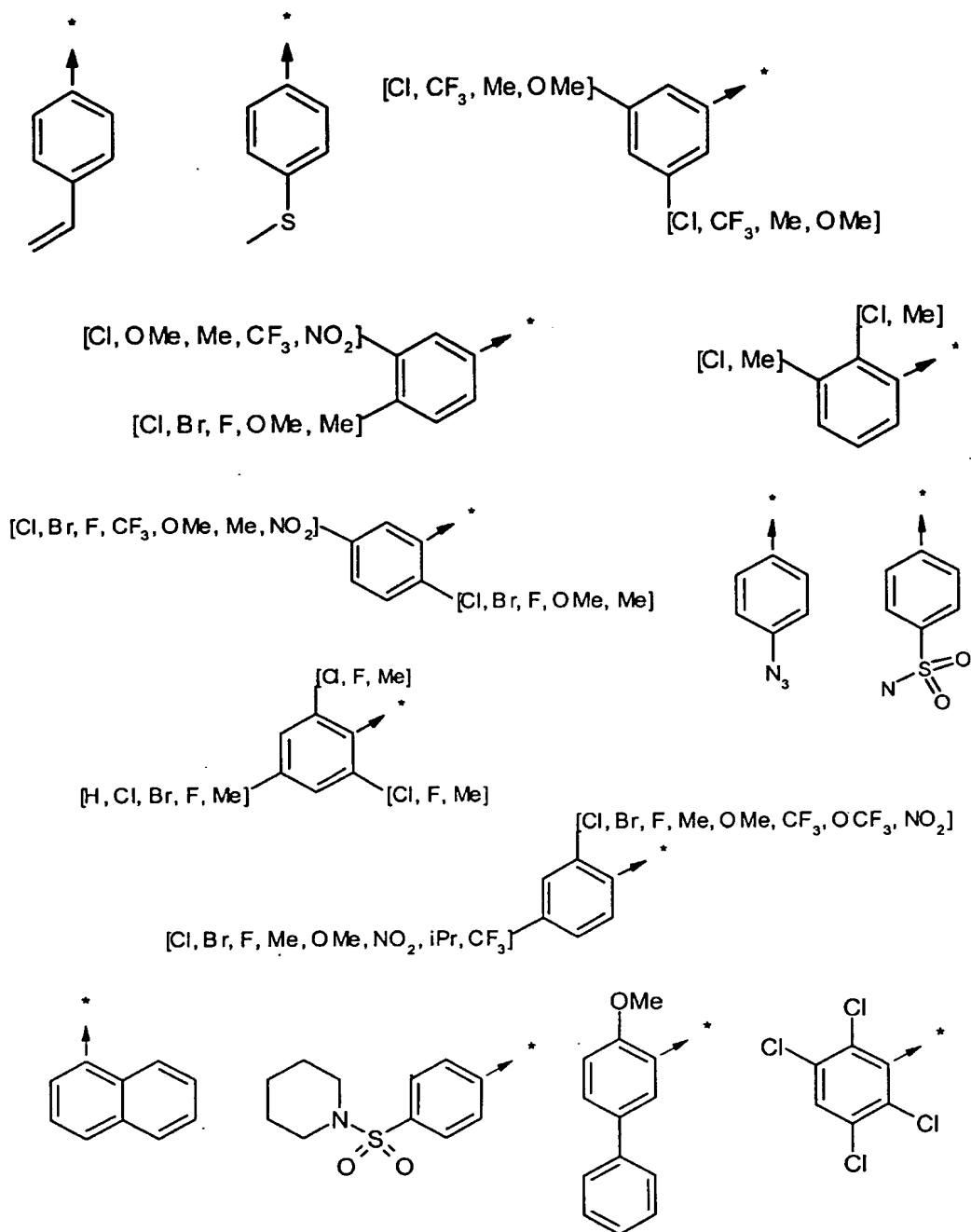
Une série de 2-arylimino-2,3-dihydrothiazoles a été synthétisée selon la méthode A à l'aide de notre système robotique (ACT MOS 496) :

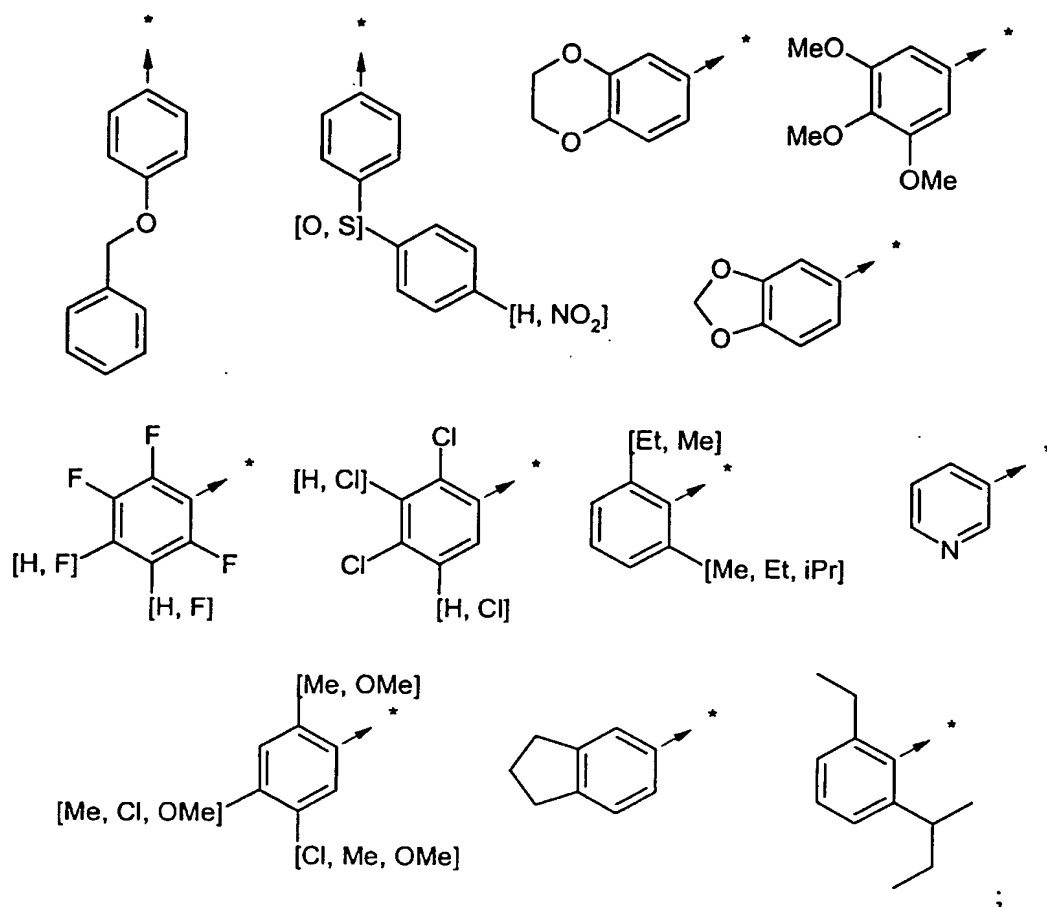
Groupes R1 :



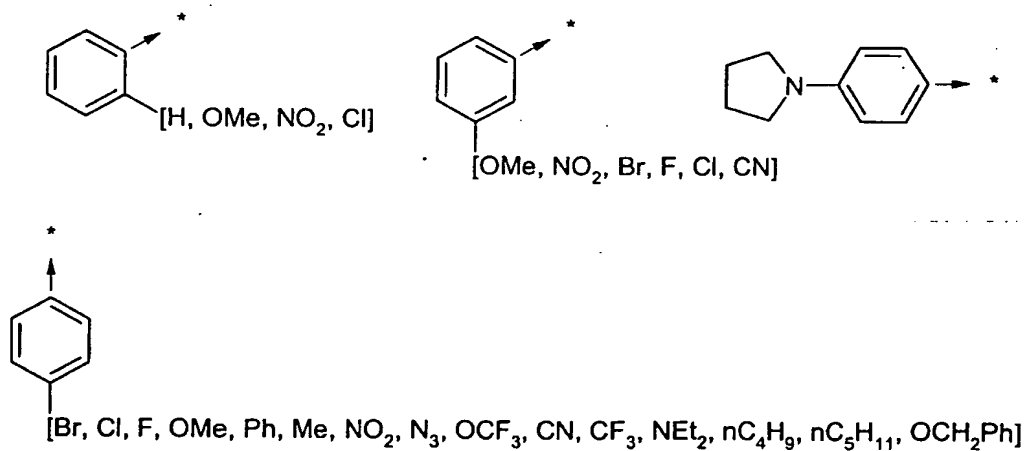
5 Groupes R2 :

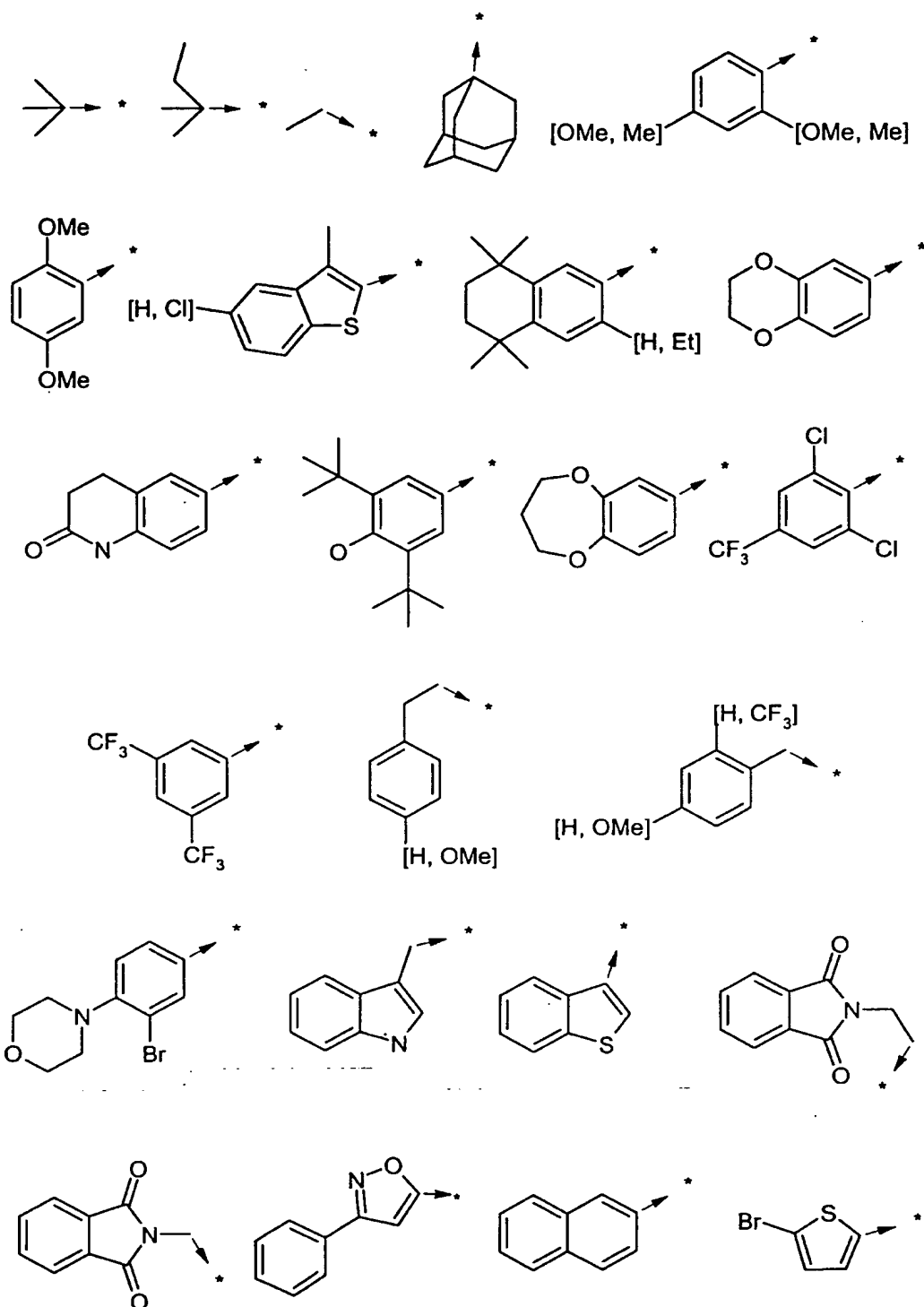


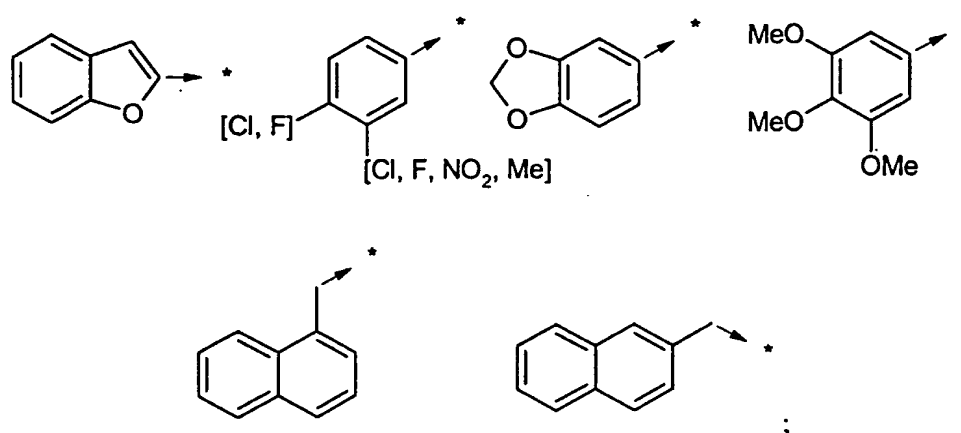




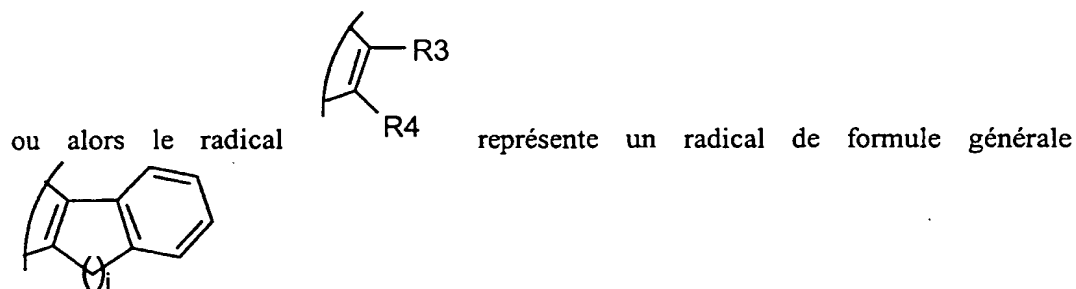
Groupes R3 :







R4 représente H, alkyle, aralkyle carbocyclique ou hétérocyclique éventuellement situé sur le radical aryle ;

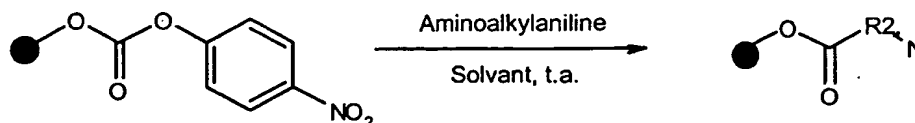


5 dans laquelle i représente un entier de 1 à 3 ;

étant entendu que pour R4, lorsque le groupe aryle est substitué, il peut l'être de 1 à 5 fois (outre la liaison qui le relie au reste de la molécule) par des radicaux choisis indépendamment parmi le groupe composé d'un atome halogène et d'un radical alkyle ou alkoxy.

METHODE B

10 Préparation de résines de Wang carbamates à partir d'aminoalkylanilines

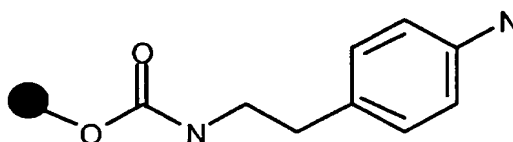


Procédure générale : comme déjà décrit (Hulme, C. ; Peng, J. ; Morton, G. ; Salvino, J.M. ; Herpin, T. ; Labaudiniere, R. *Tetrahedron Lett.* 1998, 39, 7227-7230), une résine de Wang p-nitrophénylcarbonate est traitée avec un excès d'aminoalkylaniline (5-10 éq.) dans du DCM ou du DMF et agitée à température ambiante durant une nuit.

- 5 La résine est lavée successivement avec du DMF, du méthanol et du DCM puis séchée une nuit sous pression réduite à 50 °C.

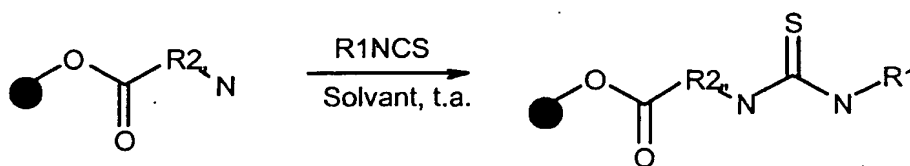
Préparation 20

Résine de Wang carbamate de 4-aminophényléthyle



- A une résine de Wang p-nitrophénylcarbonate (4,05 g ; 3,47 mmol ; charge de 0,857 mmol/g) pré-gonflée dans 50 ml de DMF anhydre est ajoutée une solution de 2-(4-aminophényl)éthylamine (2,48 g ; 17,3 mmol ; 5 éq.) dans 30 ml de DMF anhydre. Le mélange est agité à température ambiante durant une nuit et filtré. La résine est lavée successivement avec du DMF (10 x 30 ml), du méthanol (5 x 30 ml) et du DCM (5 x 30 ml). 3,7 g de résine jaune (charge de 0,8 mmol/g calculée à partir de l'analyse élémentaire de l'azote), donnant un test ninhydrine de Kaiser positif, sont isolés après séchage une nuit sous pression réduite à 50 °C.

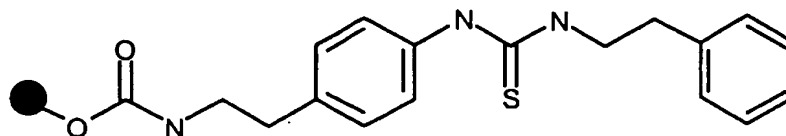
Préparation de résines thiourées avec des isothiocyanates aliphatiques



- Procédure générale : des isothiocyanates aliphatiques (5-10 équivalents) sont ajoutés à une résine aminoalkylaniline dans un solvant comme le DCM ou le DMF et agités à température ambiante durant une nuit. Lavée successivement avec du DMF et du DCM, la résine thiourée est isolée et séchée sous pression réduite à 50 °C pendant une nuit.

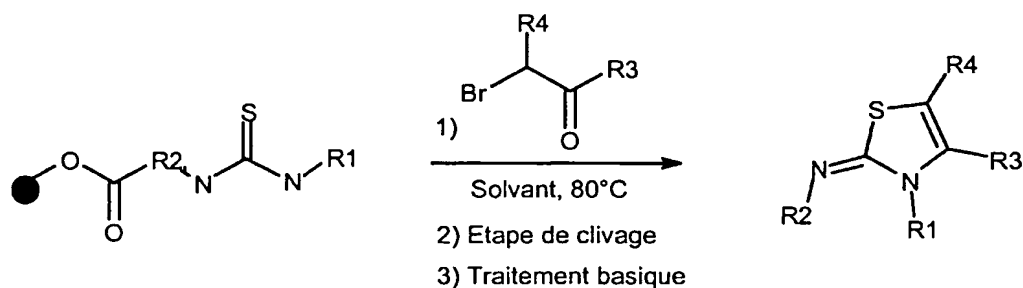
Préparation 21

Résine de Wang carbamate de 4-[(phényléthylamino)carbothioyl]amino}-phényléthyle



10 ml de DMF anhydre et du phényléthylisothiocyanate (624 μ l, 4 mmol, 10 eq.) sont ajoutés sous atmosphère d'argon à la résine précédemment décrite (0,5 g ; 0,4 mmol ; charge de 0,8 mmol/g). L'agitation durant une nuit à température ambiante donne un test ninhydrine de Kaiser négatif. La résine est alors successivement lavée avec du DMF (5 x 20 ml) et du DCM (5 x 20 ml). Un séchage sous pression réduite à 50 °C donne 488 mg de résine avec une charge de 0,629 mmol/g calculée à partir de l'analyse élémentaire du soufre.

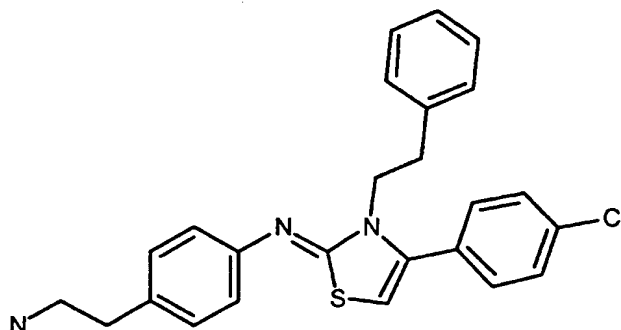
Synthèse de 2-arylimino-2,3-dihydrothiazoles



Procédure générale : l'étape de cyclisation a lieu dans des solvants aprotiques comme le dioxane ou le DMF à 80 °C pendant 2 heures entre la résine thiourée et l' α -bromocétone (2-5 équivalents). La résine est alors successivement lavée avec du DMF, du méthanol et du DCM puis séchée sous pression réduite. La résine iminothiazole est clivée par traitement dans des conditions acides (DCM/acide trifluoroacétique à 50%) pendant 1-2 heures puis rincée avec du DCM. Le solvant est évaporé et la base libre isolée après extraction dans des conditions basiques (solution saturée en hydrogencarbonate de sodium), extraction avec du DCM ou élution avec du méthanol dans une cartouche d'alumine basique (500 mg, Interchim).

Exemple 2

4-(2-aminoéthyl)-N-[4-(4-chlorophényl)-3-phénéthyl-1,3-thiazol-2(3H)-ylidène]aniline
(C₂₅H₂₄ClN₃S, MM = 434,01) :

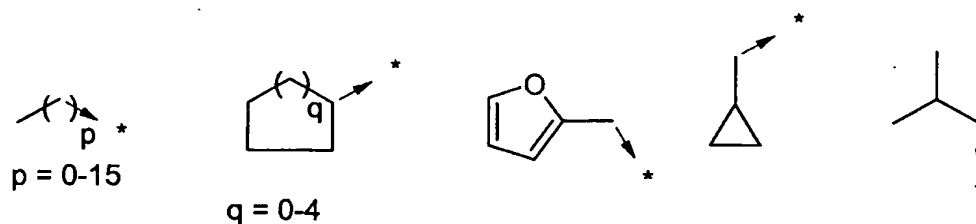


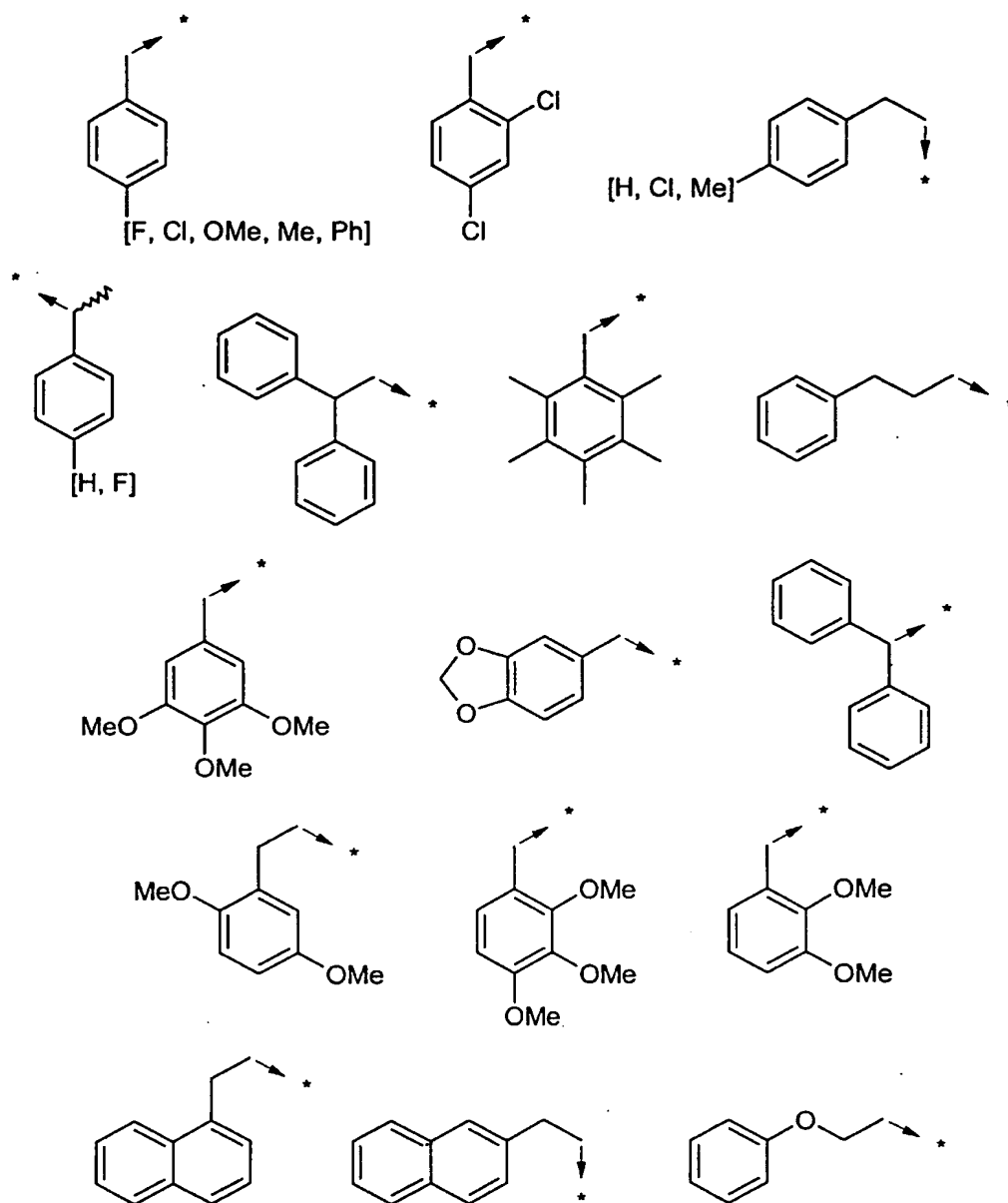
100 mg (62,9 μ mol, charge de 0,629 mmol/g) de résine thiourée et de la 2-bromo-
4'-chloroacétophénone (30 mg ; 125,8 μ mol ; 2 éq.) sont dissous dans 1 ml de DMF et
5 chauffés à 80 °C pendant 2 heures. La résine est alors lavée successivement avec du
DMF (5 x 1 ml), du méthanol (5 x 1 ml) et du DCM (5 x 1 ml). La résine est agitée dans
1 ml de mélange DCM/acide trifluoroacétique à 50% pendant une heure et demie à
température ambiante. La résine est rincée avec du DCM (5 x 1 ml) et le filtrat évaporé
10 sous pression réduite. Le résidu, dissous dans du méthanol, est élué dans une cartouche
d'alumine basique (500 mg, Interchim) pour donner quantitativement (27,3 mg) le
produit attendu sous forme d'un solide (pureté UV de 97% à 220 nm).

RMN ¹H (DMSO D₆, 100 MHz) δ : 7,9 (s large, 2H, NH₂) ; 7,53 (d, 2H,
J = 8,5 Hz) ; 7,32-7,15 (m, 7H) ; 7,08-6,9 (m, 4H) ; 6,37 (s, 1H, H azole) ; 4,07 (m, 2H,
15 NCH₂) ; 3,03 (m, 2H, NCH₂) ; 2,88 (m, 4H). SM/LC : m/z = 435 (M+H)⁺.

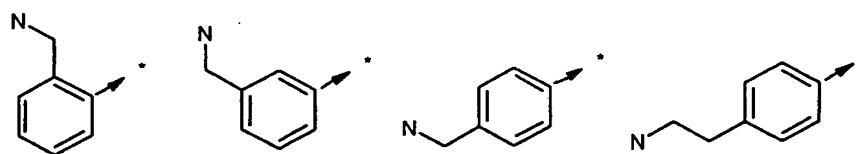
Une série de 2-arylimino-2,3-dihydrothiazoles a été synthétisée selon la méthode B avec
notre système robotique (ACT MOS 496) :

- Groupes R1





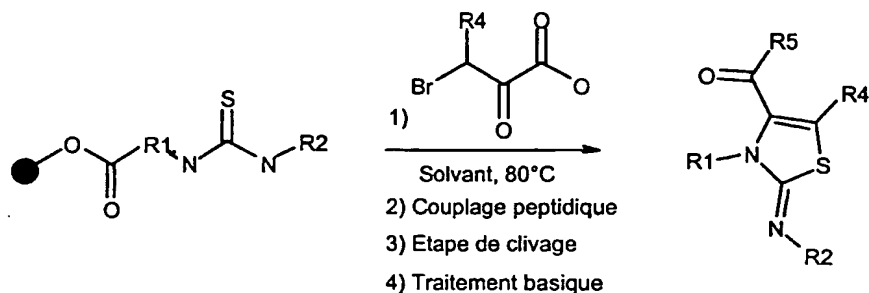
- Groupes R2



- Groupes R3 et R4 comme ceux de la méthode A

METHODE C

Synthèse de 2-arylimino-1,3-thiazole-4(3H)-carboxamides

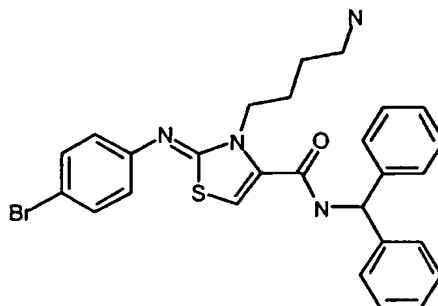


Procédure générale : une étape de cyclisation régiosélective à l'aide d'acide α -bromopyruvique (2-5 éq.) est effectuée à partir de la résine thiourée préparée dans la méthode A dans des solvants aprotiques comme le dioxane ou le DMF à 80 °C durant 2-3 heures. La résine est alors successivement lavée avec du DMF, du méthanol et du DCM puis séchée sous pression réduite. Le couplage peptidique (Knorr, R. ; Trzeciak, A. ; Bannwarth, W. ; Gillessen, D. *Tetrahedron Lett.* **1989**, *30*, 1927-1930) a lieu dans le DMF à température ambiante pendant 1-24 heures avec différents agents de couplage classiques (4-5 éq.) comme le dicyclohexylcarbodiimide (DCC), le diisopropylcarbodiimide (DIC), un mélange DIC/N-hydroxybenzotriazole (HOBt), l'hexafluorophosphate de benzotriazol-1-yl-1,1,3,3-tétraméthyluronium (PyBOP), l'hexafluorophosphate de 2-(1H-benzotriazol-1-yl)-1,1,3,3-tétraméthyluronium (HBTU) ou le tétrafluoroborate de 2-(1H-benzotriazol-1-yl)-1,1,3,3-tétraméthyluronium (TBTU) et des composés aminés (4-5 éq.). La résine 2-arylimino-1,3-thiazole-4(3H)-carboxamide est clivée par traitement dans des conditions acides (DCM/acide trifluoroacétique à 50%) pendant 1-2 heures puis rinçage avec du DCM. Le solvant est évaporé et la base libre isolée après traitement dans des conditions basiques (solution saturée en hydrogénocarbonate de sodium), extraction avec du DCM ou élution avec du méthanol dans une cartouche d'alumine basique (500 mg, Interchim).

Exemple 3

3-(4-aminobutyl)-N-benzhydryl-2-[(4-bromophényl)imino]-1,3-thiazole-4(3H)-carboxamide

(C₂₇H₂₇BrN₄OS, MM = 535,51) :



- 5 50 mg (27,5 µmol, charge de 0,55 mmol/g) de résine acide carboxylique est activée pendant 15 minutes avec 14,8 mg (0,11 mmol, 4 éq.) de N-hydroxybenzotriazole et 35,3 mg (0,11 mmol, 4 éq.) de TBTU dans 800 µl de DMF anhydre. 20,7 mg (0,11 mmol, 4 éq.) d'aminodiphénylméthane dissous dans 200 µl de DMF anhydre sont alors ajoutés et la résine est filtrée après agitation durant une nuit à
- 10 température ambiante. Un lavage séquentiel avec du DMF (5 x 1 ml), du méthanol (5 x 1 ml) et du DCM (5 x 1 ml) donne une résine qui est traitée pendant une heure et demie dans des conditions acides (DCM/acide trifluoroacétique à 50 %). La résine est rincée avec du DCM (5 x 1 ml) et le filtrat évaporé sous pression réduite. Le résidu,
- 15 repris dans du méthanol, est élué dans une cartouche d'alumine basique (500 mg, Interchim) pour donner un solide jaune pâle (8,2 mg ; rendement de 55,7 % ; pureté UV de 94 % à 220 nm).

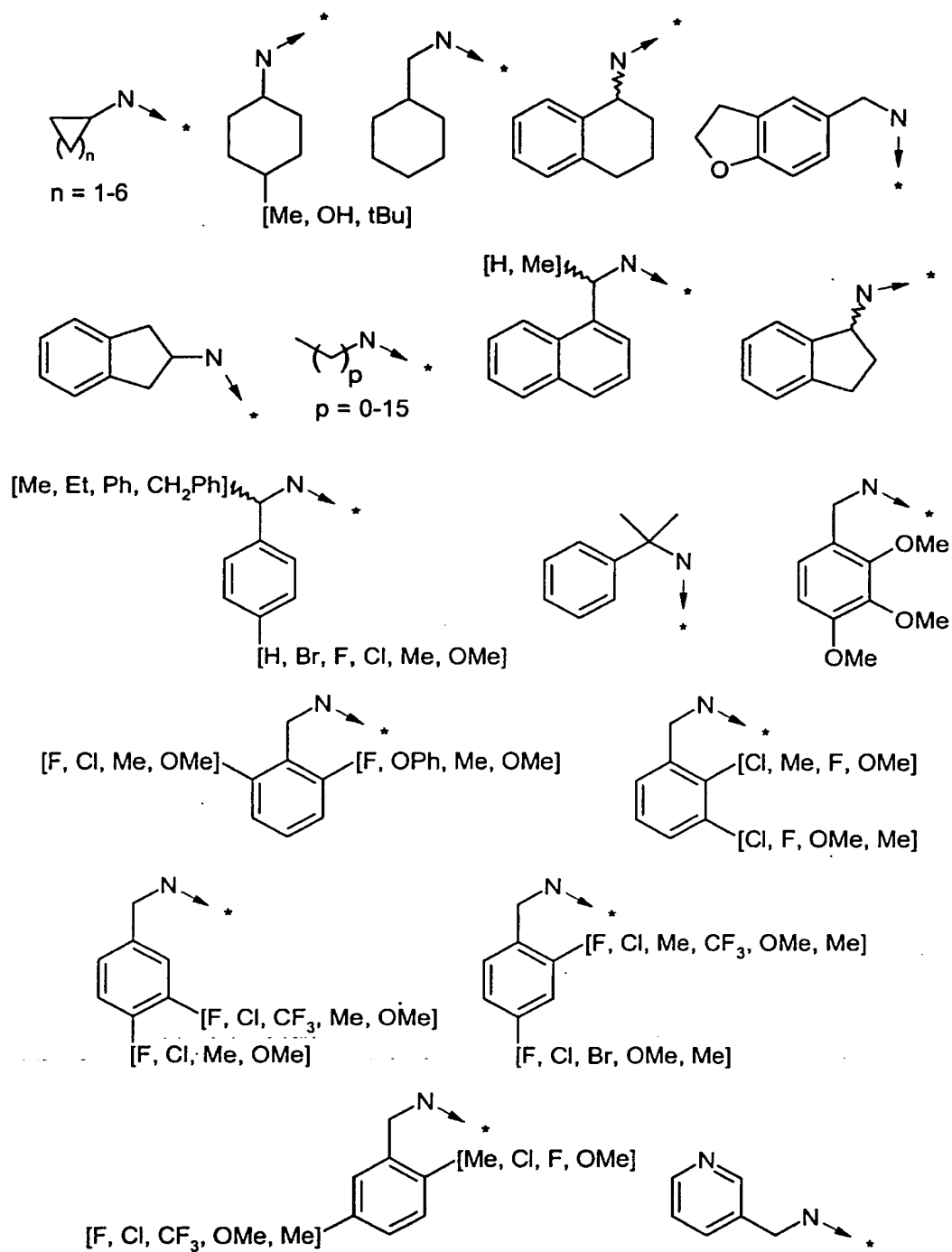
RMN ¹H (DMSO D6, 100 MHz, δ) : 9,6 (d ; 1H ; J = 8,6 Hz ; NH) ; 7,49 (d ; 2H ; J = 8,6 Hz) ; 7,35 (s ; 10H) ; 6,92 (s ; 1H ; Hazole) ; 6,91 (d ; 2H ; J = 8,5 Hz) ; 6,27 (d ; 1H ; J = 8,5 Hz ; NHCH) ; 4,02 (m ; 2H ; NCH₂) ; 3,45 (m large ; 2H+2H ; NH₂ et NCH₂) ; 1,55-1,24 (m large ; 4H). SM/CL : m/z = 535 (M+H).⁺

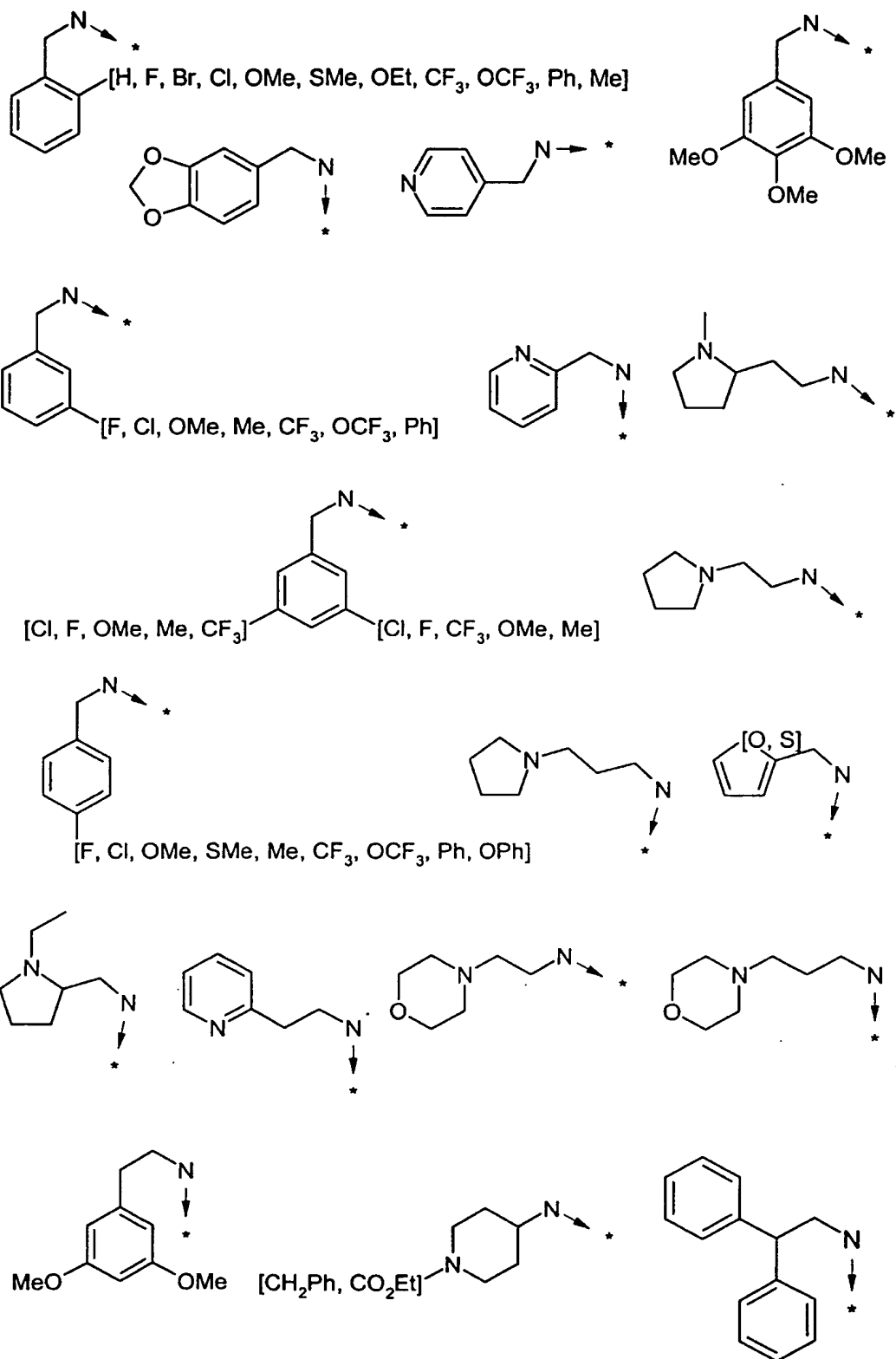
20

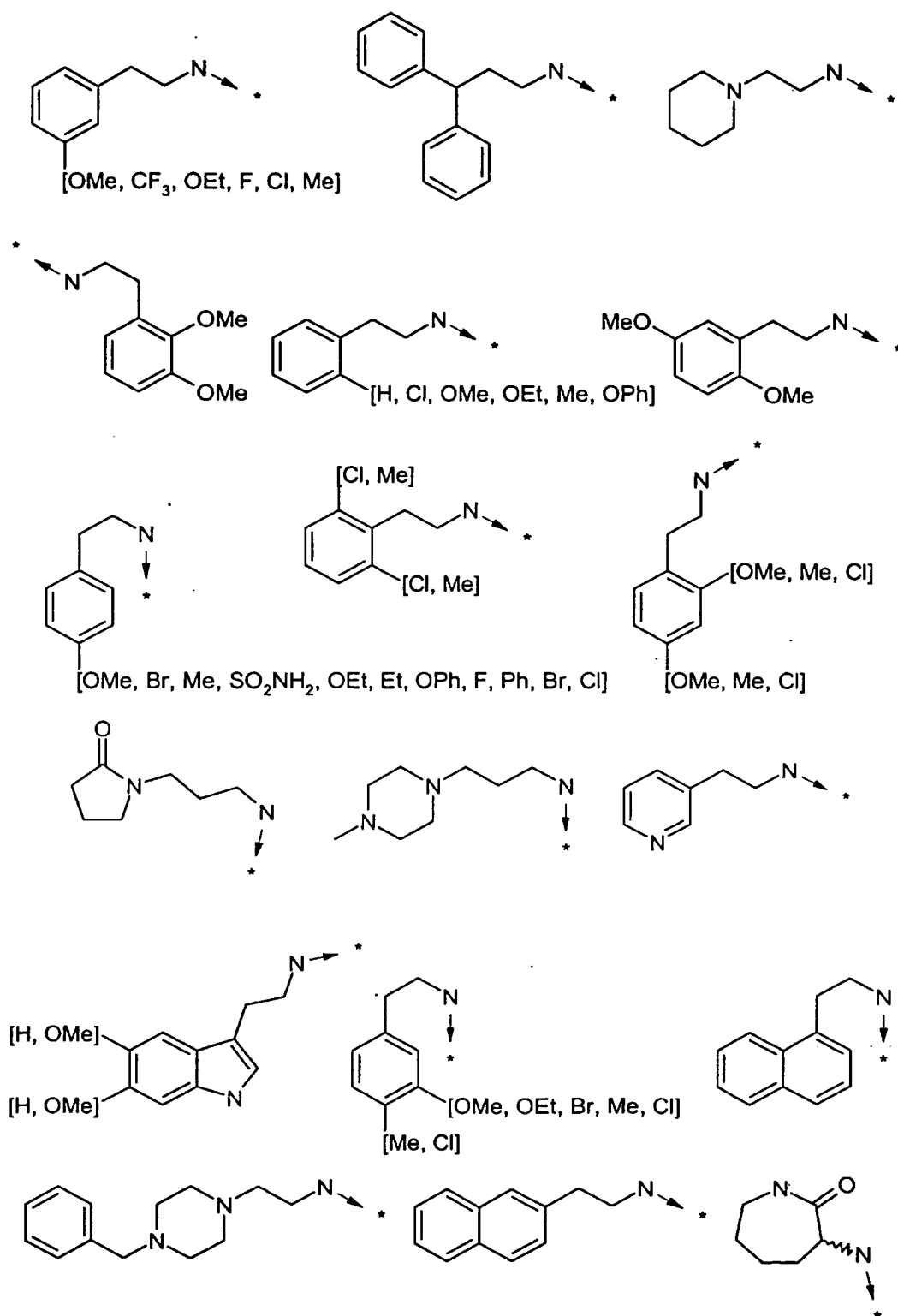
Une série de 2-arylimino-1,3-thiazole-4(3H)-carboxamides a été synthétisée selon la méthode C à l'aide de notre système robotique (ACT MOS 496) :

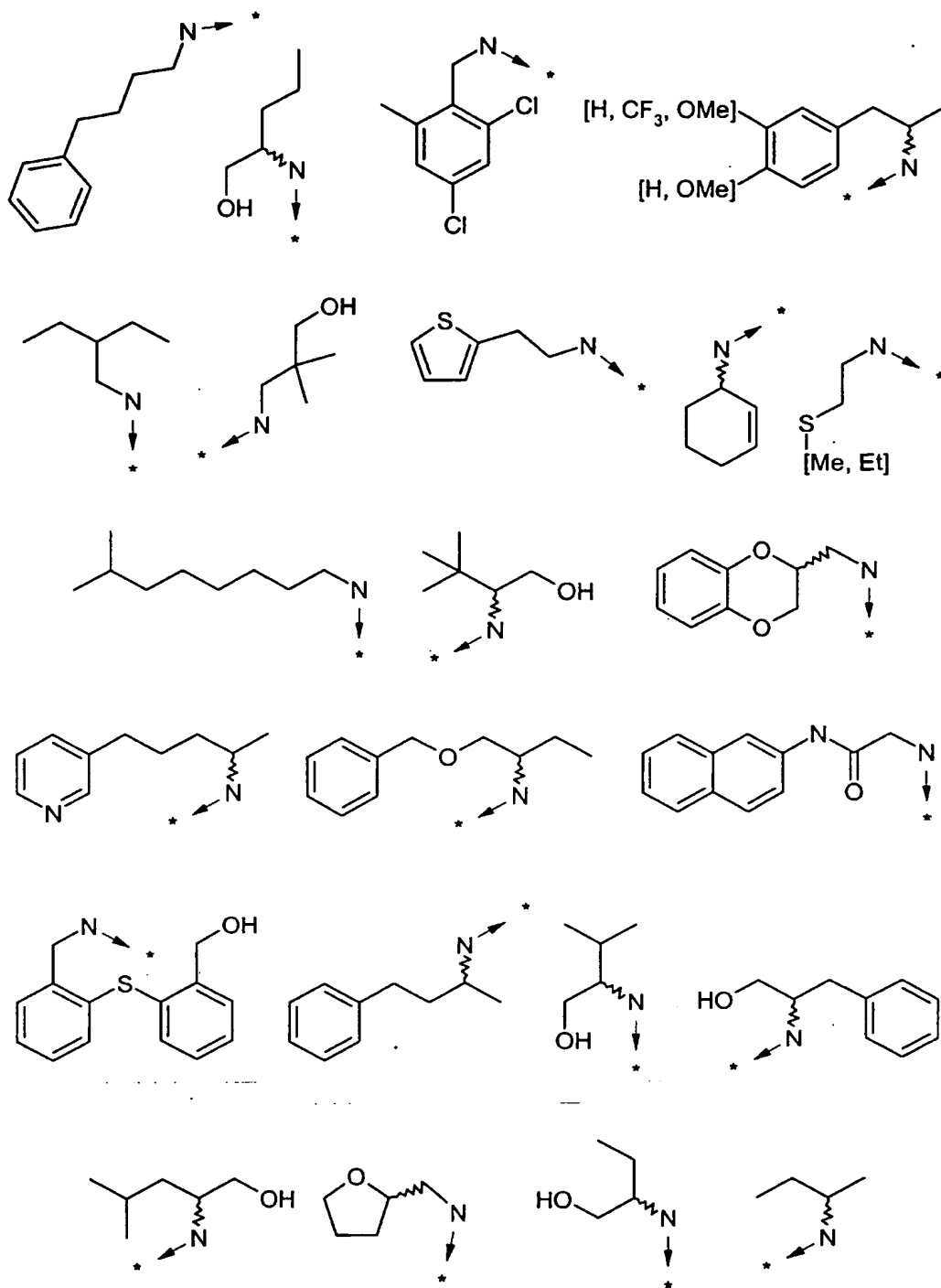
- Groupes R1 et R2 déjà décrits dans la méthode A ;
- R3 = -CO-R5 ;
- 25 - R4 = H ;

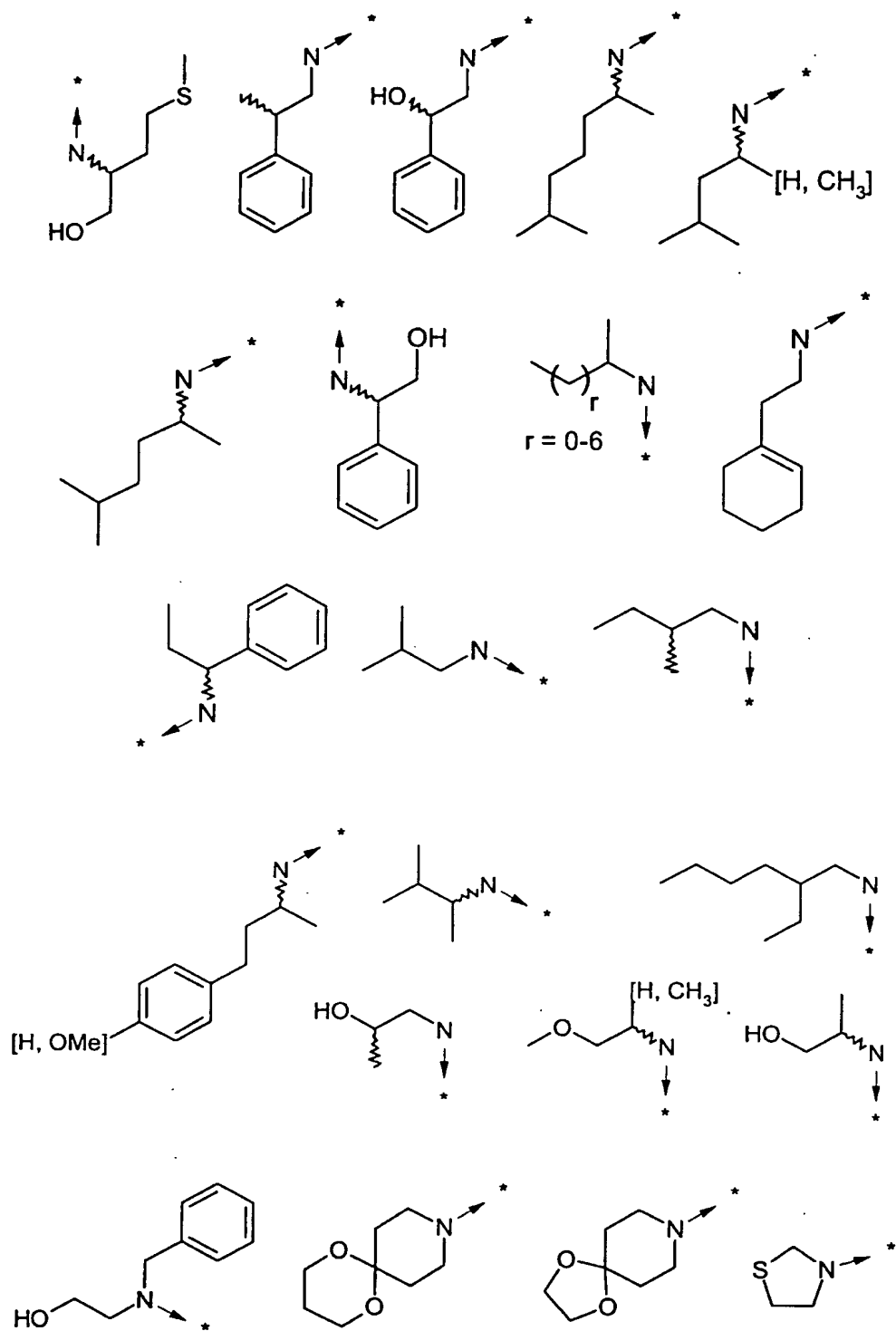
- Groupes R5

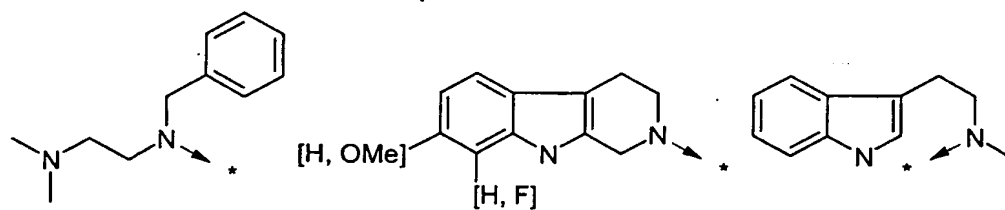
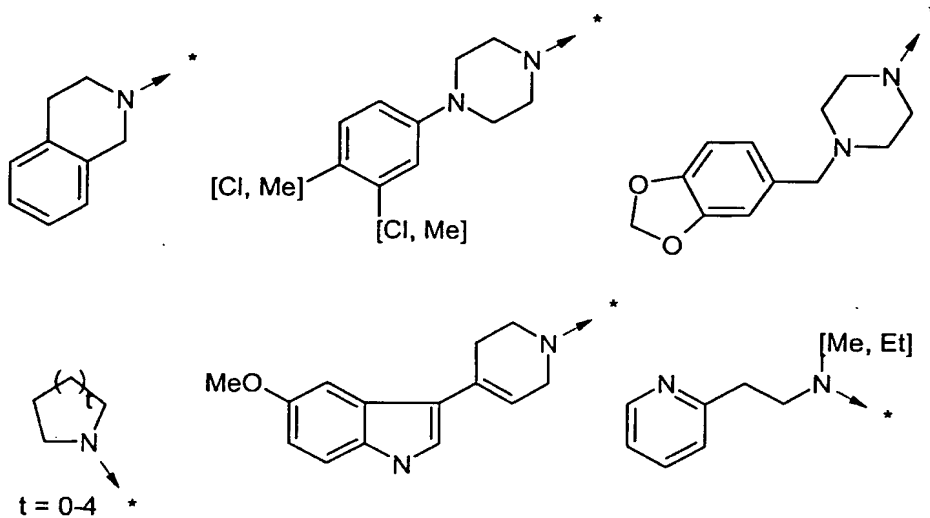
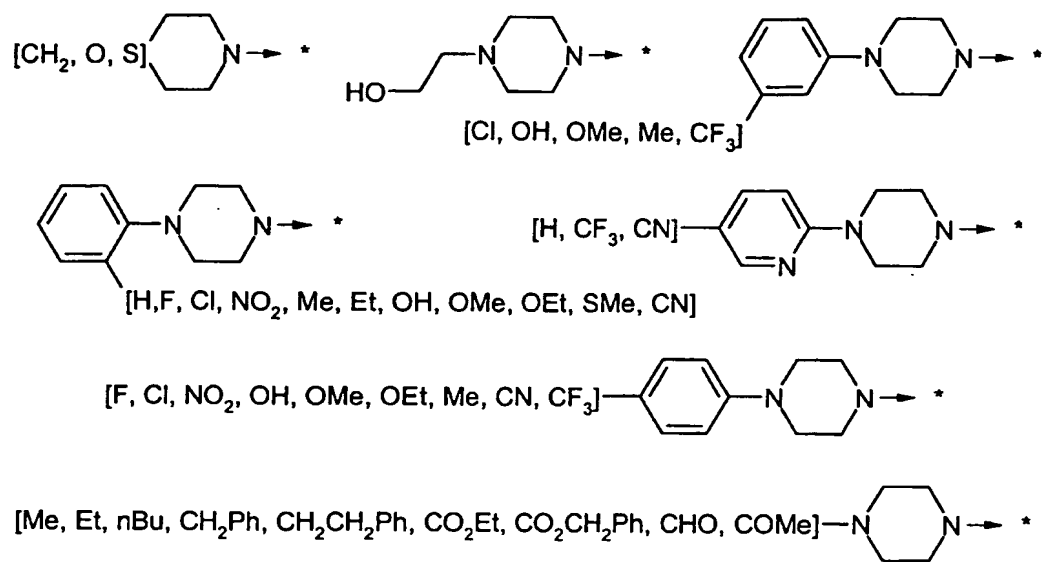


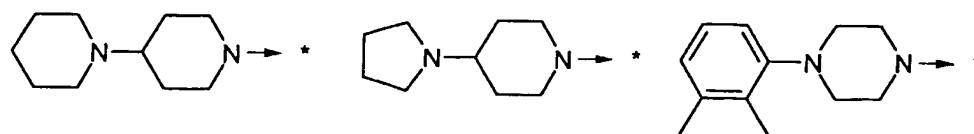
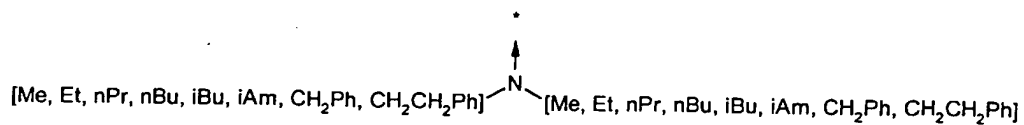
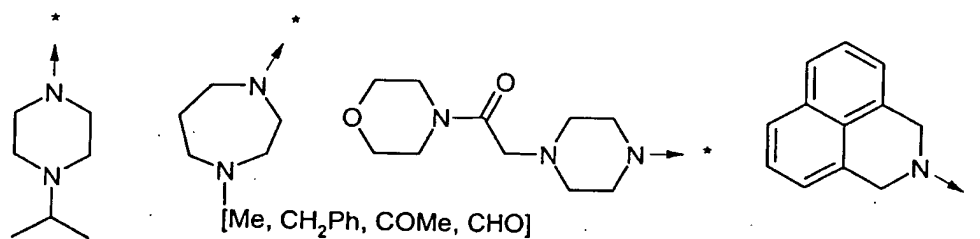
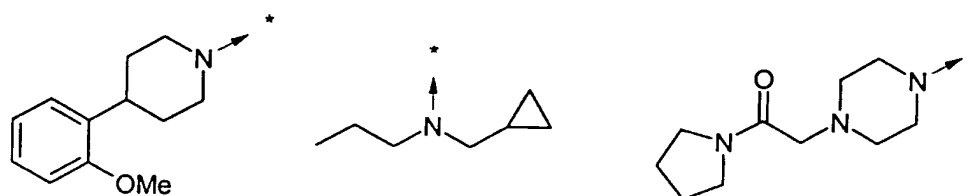
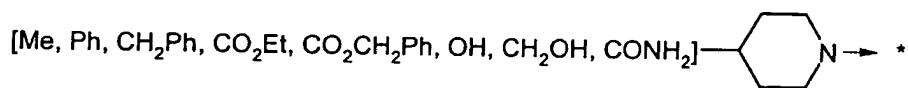
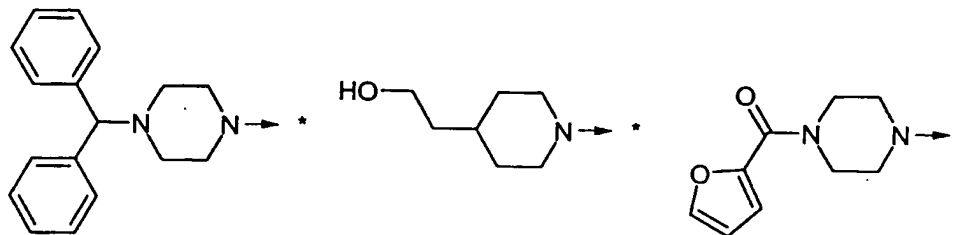
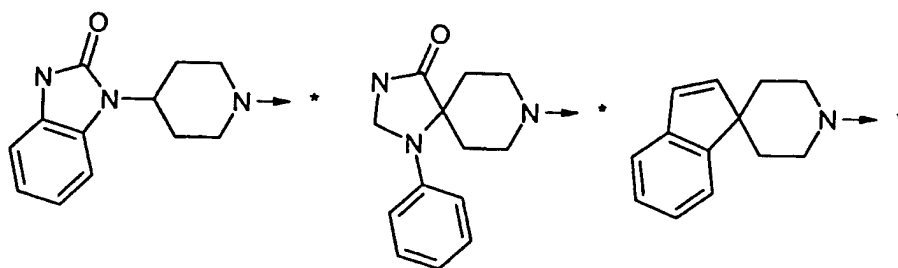


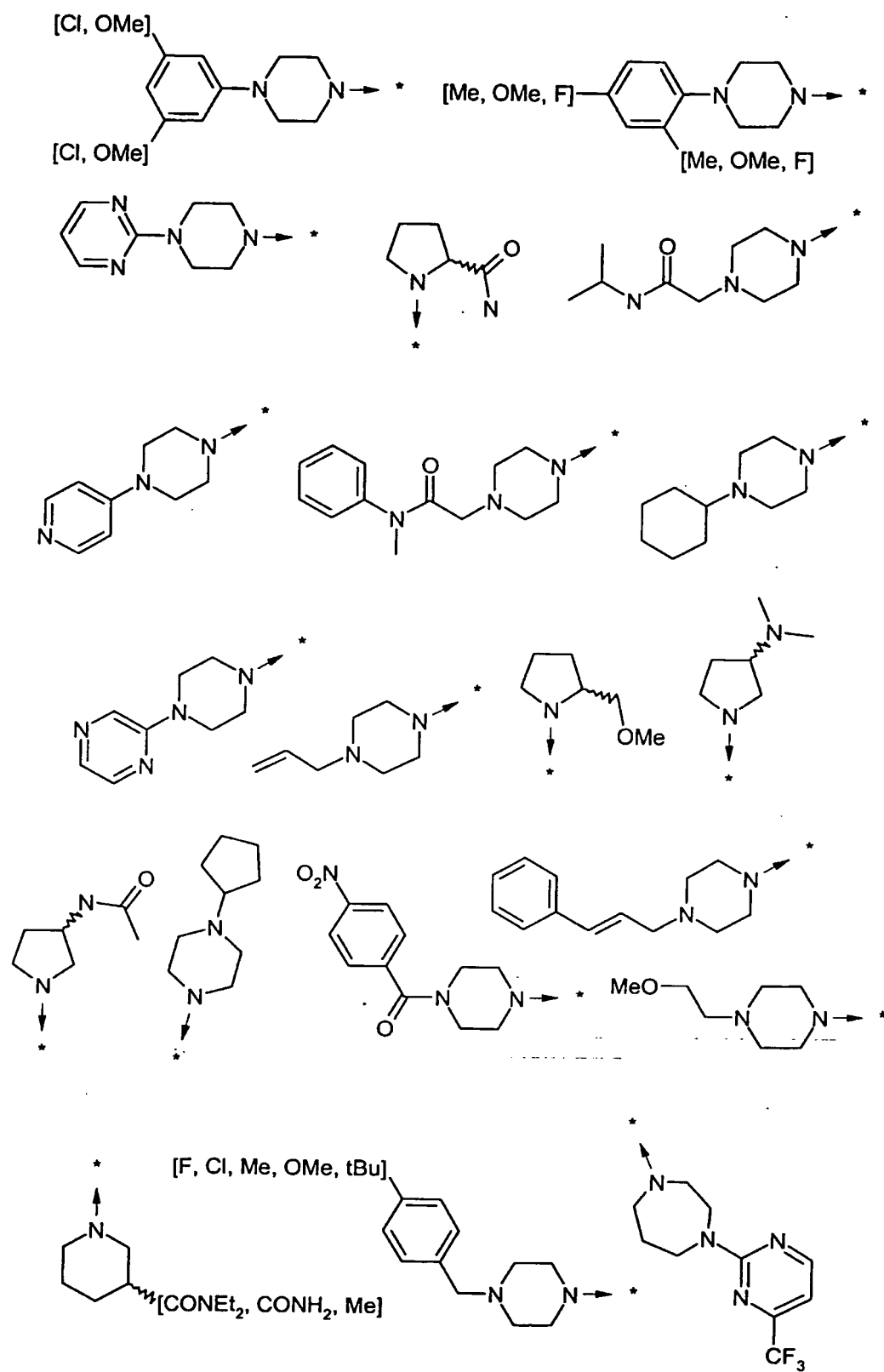


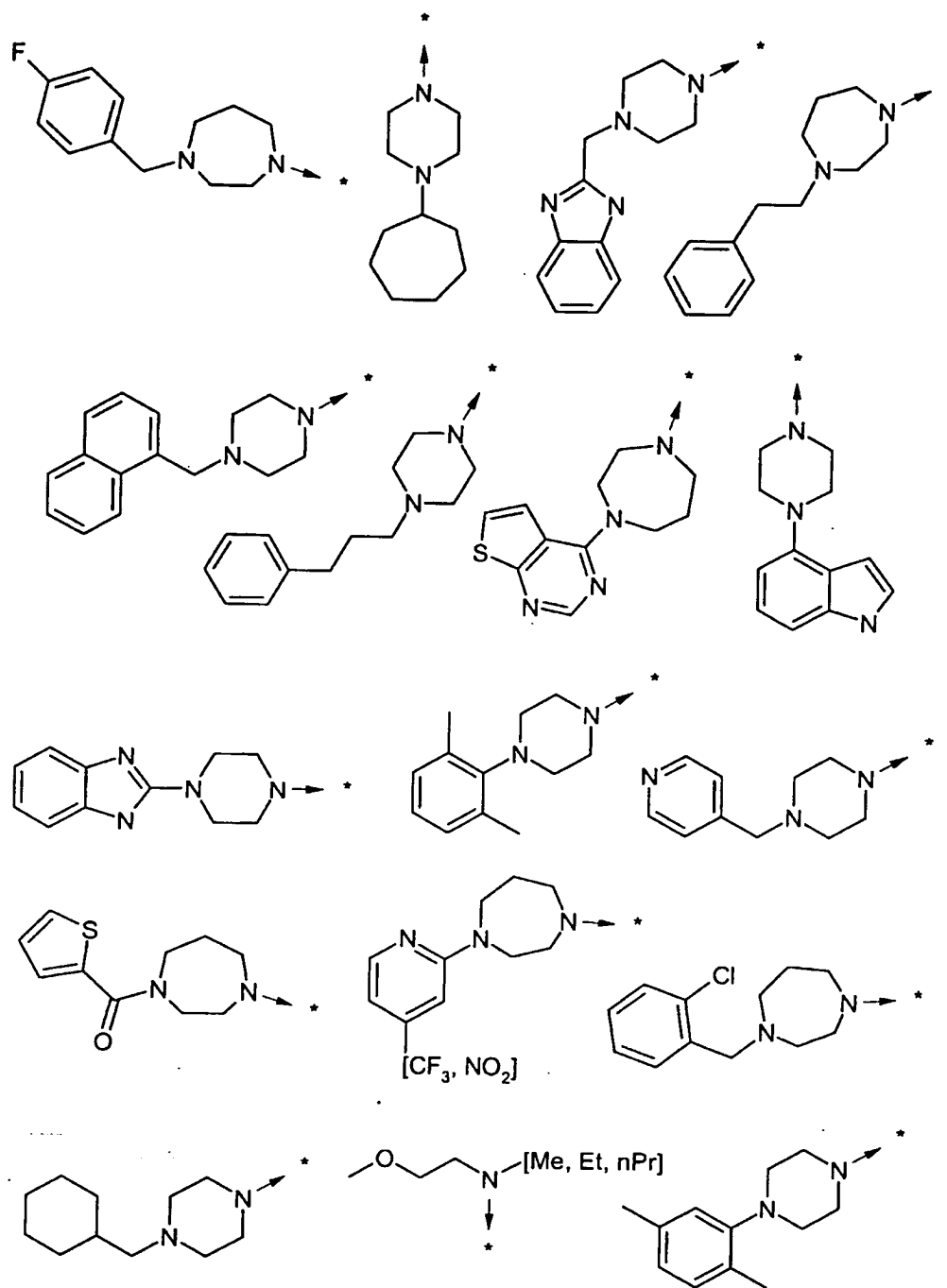


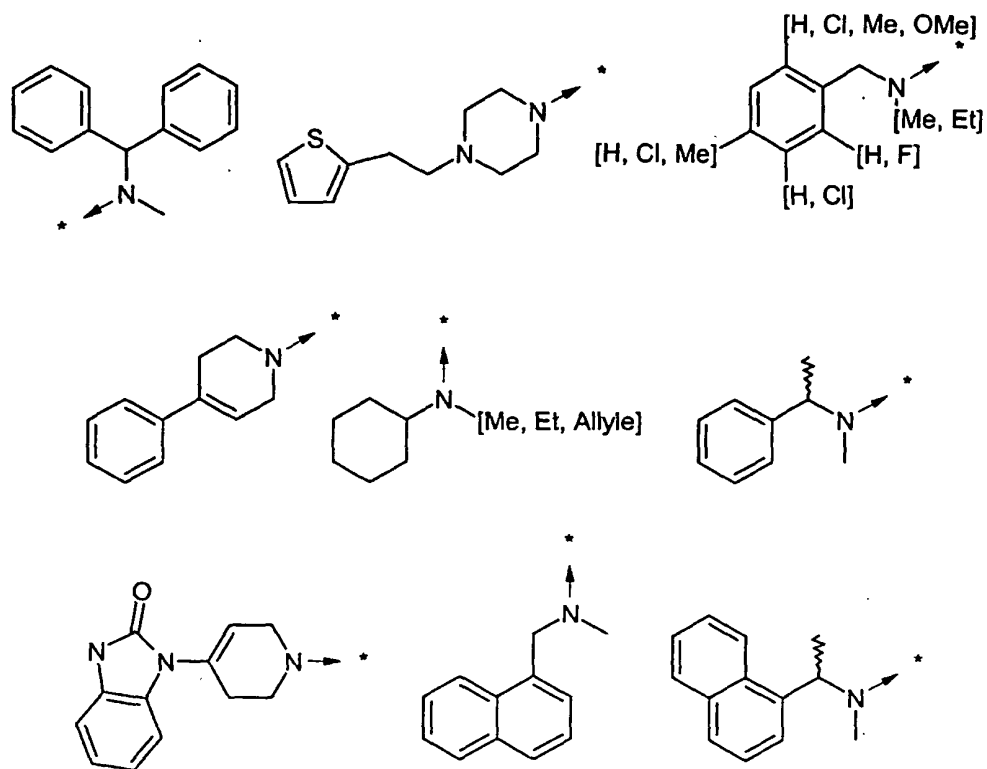






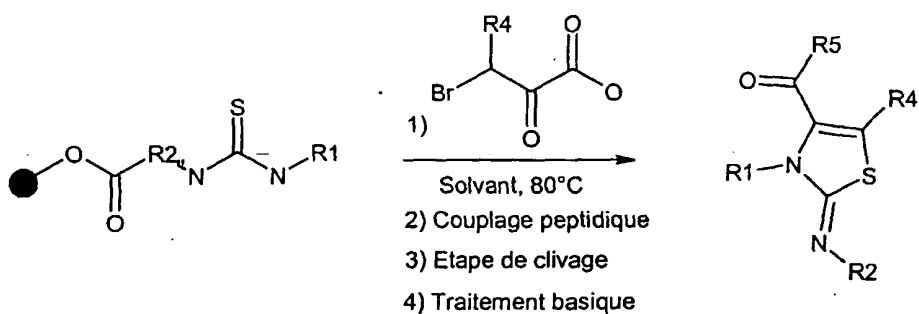






METHODE D

Synthèse de 2-arylimino-1,3-thiazole-4(3H)-carboxamides



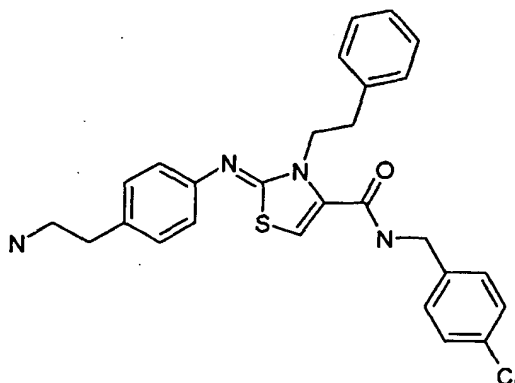
Procédure générale: une étape de cyclisation régiosélective à l'aide d'acide α -bromopyruvique (2-5 éq.) est effectuée à partir de la résine thiourée préparée dans la méthode B dans des solvants aprotiques comme le dioxane ou le DMF à 80 °C durant

2-3 heures. La résine est alors successivement lavée avec du DMF, du méthanol et du DCM puis séchée sous pression réduite. Le couplage peptidique (Knorr, R. ; Trzeciak, A. ; Bannwarth, W. ; Gillessen, D. *Tetrahedron Lett.* 1989, 30, 1927-1930) a lieu dans le DMF à température ambiante pendant 1-24 heures avec différents agents de couplage classiques (4-5 éq.) comme le dicyclohexylcarbodiimide (DCC), le diisopropylcarbodiimide (DIC), un mélange DIC/N-hydroxybenzotriazole (HOBt), l'hexafluorophosphate de benzotriazol-1-yl-1,1,3,3-tétraméthyluronium (PyBOP), l'hexafluorophosphate de 2-(1H-benzotriazol-1-yl)-1,1,3,3-tétraméthyluronium (HBTU) ou le tétrafluoroborate de 2-(1H-benzotriazol-1-yl)-1,1,3,3-tétraméthyluronium (TBTU) et des composés aminés (4-5 éq.). La résine 2-arylimino-1,3-thiazole-4(3H)-carboxamide est clivée par traitement dans des conditions acides (DCM/acide trifluoroacétique à 50%) pendant 1-2 heures puis rinçage avec du DCM. Le solvant est évaporé et la base libre isolée après traitement dans des conditions basiques (solution saturée en hydrogénocarbonate de sodium) suivi d'une extraction avec du DCM ou élution avec du méthanol dans une cartouche d'alumine basique (500 mg, Interchim).

Exemple 4

(2Z)-2-{{[4-(2-aminoéthyl)phényl]imino}-N-(4-chlorobenzyl)-3-(2-phényléthyl)-2,3-dihydro-1,3-thiazole-4-carboxamide

(C₂₇H₂₇ClN₄OS, MM = 491,05) :



A 200 mg (190 μ mol, charge de 0,946 mmol/g) de résine aminée (voir préparation 20) est ajouté du phényléthylisothiocyanate (310 mg ; 1,9 mmol ; 10 éq.) dans 3 ml de diméthylformamide. L'agitation durant une nuit à température ambiante donne un test ninhydrine de Kaiser négatif. La résine est alors successivement lavée avec du DMF
5 (5 x 3 ml) et du DCM (5 x 3 ml) puis séchée sous vide pendant une heure avant d'ajouter l'acide bromopyruvique (63,4 mg ; 380 μ mol ; 2 éq.) préalablement dilué dans 3 ml de diméthylformamide. Le mélange est agitée pendant 2,5 heures à 80°C. Filtrer et laver la résine au DMF (5 x 3 ml), méthanol (3 x 3 ml) puis DCM (5 x 3 ml). La résine acide carboxylique est préactivée pendant 1 heure avec 244 mg (0,76 mmol ; 4 éq.) de
10 TBTU dilué dans 2 ml de DMF anhydre. 110 mg (0,76 mmol ; 4 éq.) de 4-chlorobenzylamine dissous dans 1 ml de DMF anhydre sont alors ajoutés et la résine est filtrée après une nuit d'agitation à température ambiante. Un lavage séquentiel avec du DMF (5 x 3 ml), du méthanol (3 x 3 ml) et du DCM (3 x 3 ml) donne une résine qui est traitée pendant une heure et demie dans des conditions acides (DCM/acide
15 trifluoroacétique à 50 %). La résine est rincée avec du DCM (5 x 1 ml) et le filtrat évaporé sous pression réduite. Le résidu, repris dans du DCM, est neutralisé avec une solution saturée d'hydrogénocarbonate de sodium pour donner après évaporation un solide (38,2 mg ; rendement de 41% ; pureté UV de 90% à 210 nm).

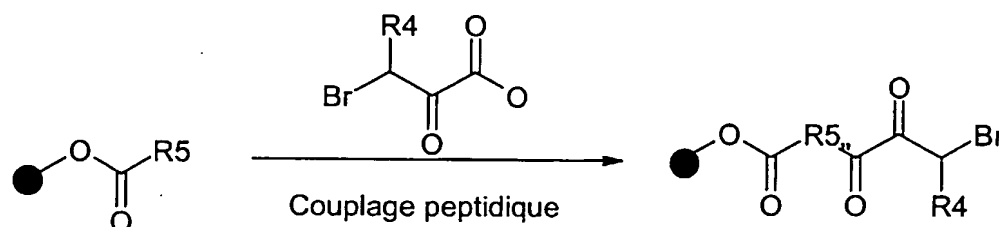
RMN ¹H (DMSO D₆, 400 MHz, δ) : 9,1 (m, 1H) ; 7,39 (d, 2H, J = 8,4 Hz) ; 7,33 (d, 2H, J = 8,4 Hz) ; 7,25 (q, 2H, J = 6,8 Hz) ; 7,19 (q, 1H, J = 7,2 Hz) ; 7,11 (m, 4H) ; 6,8 (d, 2H, J = 8 Hz) ; 6,75 (s, 1H, H azole) ; 4,34 (d, 2H, J = 6 Hz) ; 4,27 (t, 2H, J = 6,8 Hz) ; 3,14 (m, 1H) ; 2,89 (t, 2H, J = 6,8 Hz) ; 2,73 (t, 1H, J = 7,2 Hz) ; 2,62 (m, 2H).
20 SM/CL : m/z = 491,24 (M+H)⁺.

Une série de 2-arylimino-1,3-thiazole-4(3*H*)-carboxamides a été synthétisée selon la méthode D à l'aide de notre système robotique (ACT MOS 496) :

- Groupes R1 et R2 déjà décrits dans la méthode B
- R3 = -CO-R5
- R4 = H
- Groupes R5 déjà décrits dans la méthode C.

METHODE E

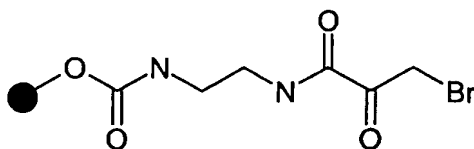
Préparation de résine diamine monoprotégée fonctionnalisée avec l'acide α -bromopyruvique



Procédure générale : la résine diamine primaire ou secondaire symétrique monoprotégée (dont la préparation est déjà décrite dans la méthode A) est fonctionnalisée par couplage peptidique avec l'acide α -bromopyruvique (10 éq.), le DIC (10 éq.) et l'HOBt (10 éq.) dans un solvant tel que le DMF à température ambiante. La résine est successivement lavée au DMF puis au DCM après 2 à 24 heures d'agitation avant d'être séchée sous vide. Le test ninhydrine de Kaiser négatif indique une fonctionnalisation complète.

Préparation 22

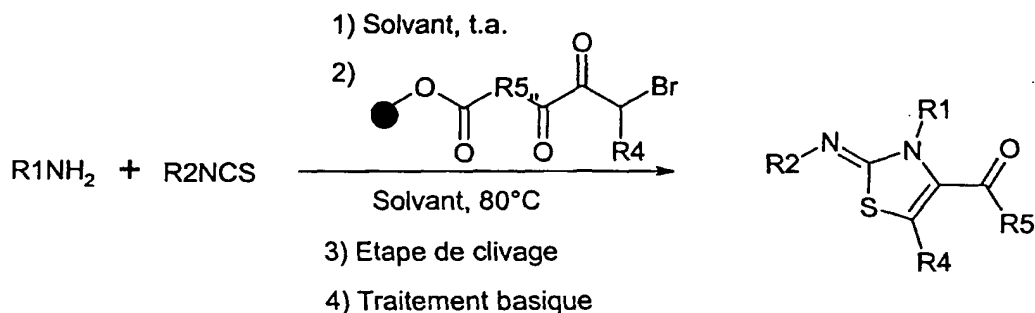
Résine de Wang *N*-carbamate de 2-[(3-bromo-2-oxopropanoyl)amino]éthyle



L'HOBt (0,93 g, 6,88 mmol) et l'acide α -bromopyruvique (1,18 g, 6,88 mmol) sont dissous dans 28 ml de DMF (0,5 M). Le DIC (1,07 ml ; 6,88 mmol) est ensuite additionné à la seringue pour activer l'acide. Le mélange est agité environ 15

minutes à température ambiante avant de l'ajouter à la résine de Wang N-carbamate d'éthylène diamine (0,8 g ; 0,688 mmol ; taux de charge de 0,86 mmol/g). Après 3 heures d'agitation à température ambiante, le test ninhydrine de Kaiser étant négatif, la résine est filtrée et lavée successivement au DMF (5 x 20 ml) puis au DCM (5 x 20 ml) avant d'être séchée sous vide. Une résine ocre (0,812 g) est obtenue avec un taux de charge de 0,525 mmol/g calculé à partir de l'analyse élémentaire du brome.

Synthèse de 2-arylimino-1,3-thiazole-4(3H)-carboxamides

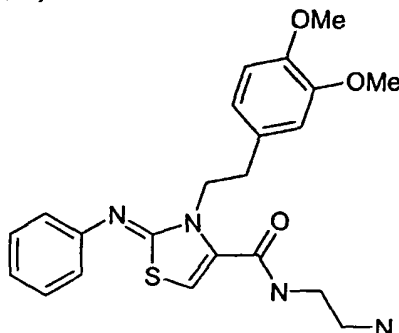


Procédure générale : la formation de la thiourée s'effectue dans un solvant tel que le DMF ou le dioxane en mélangeant une quantité équimolaire d'amine primaire et d'isothiocyanate aromatique ou hétéroaromatique. Après 2 à 24 heures d'agitation à température ambiante, la thiourée (2 à 5 éq.) est additionnée à la résine fonctionnalisée puis chauffée à 80°C pendant 2 à 4 heures. La résine 2-arylimino-1,3-thiazole-4(3H)-carboxamide est clivée par traitement dans des conditions acides (DCM/acide trifluoroacétique à 50%) pendant 1-2 heures puis rinçage avec du DCM. Le solvant est évaporé et la base libre isolée après traitement dans des conditions basiques (solution saturée en hydrogénocarbonate de sodium), extraction avec du DCM ou élution avec du méthanol dans une cartouche d'alumine basique (500 mg, Interchim).

Exemple 5

(2Z)-N-(2-aminoéthyl)-3-[2-(3,4-diméthoxyphényl)éthyl]-2-(phénylimino)-2,3-dihydro-1,3-thiazole-4-carboxamide

(C₂₂H₂₆N₄O₃S, MM = 426,54) :

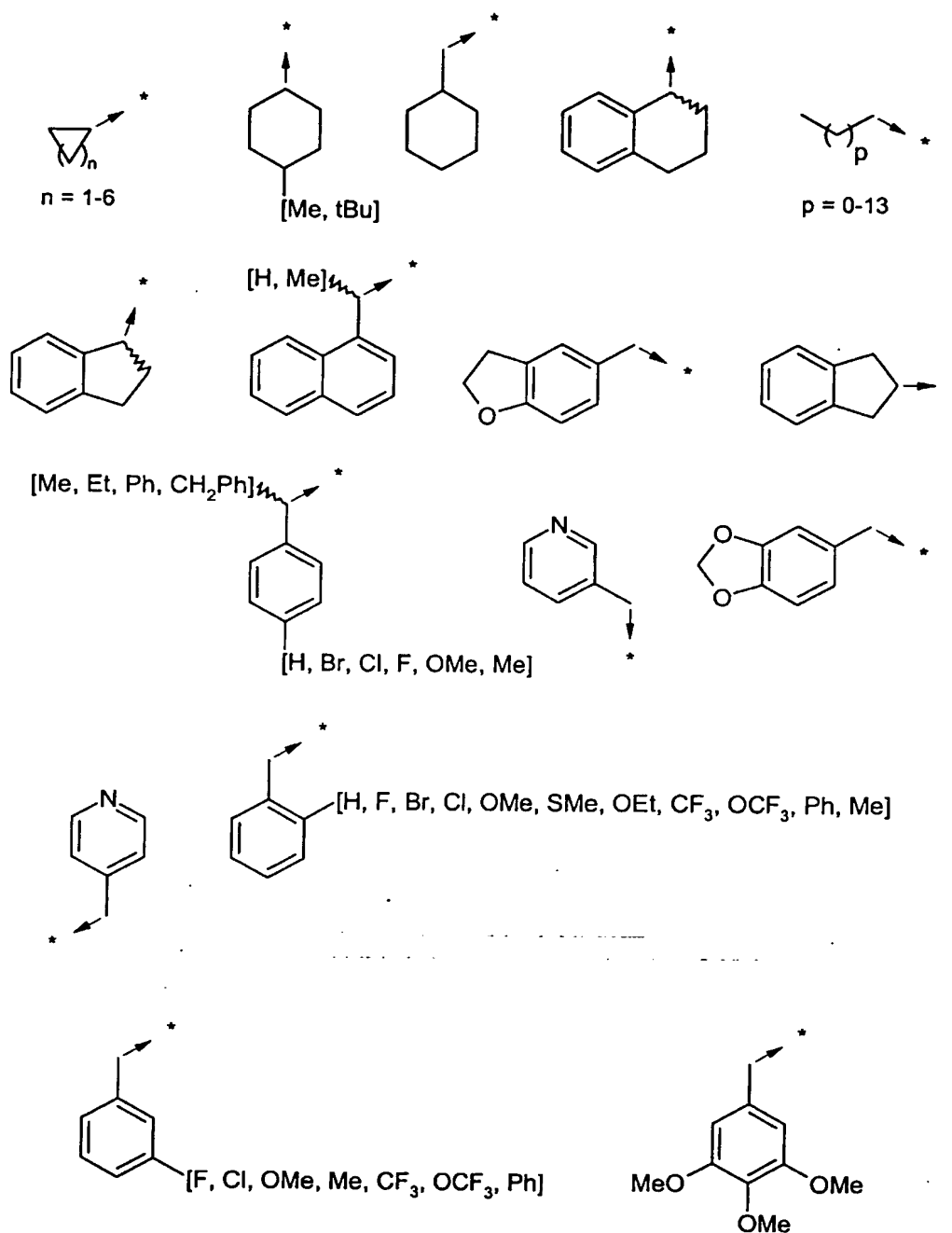


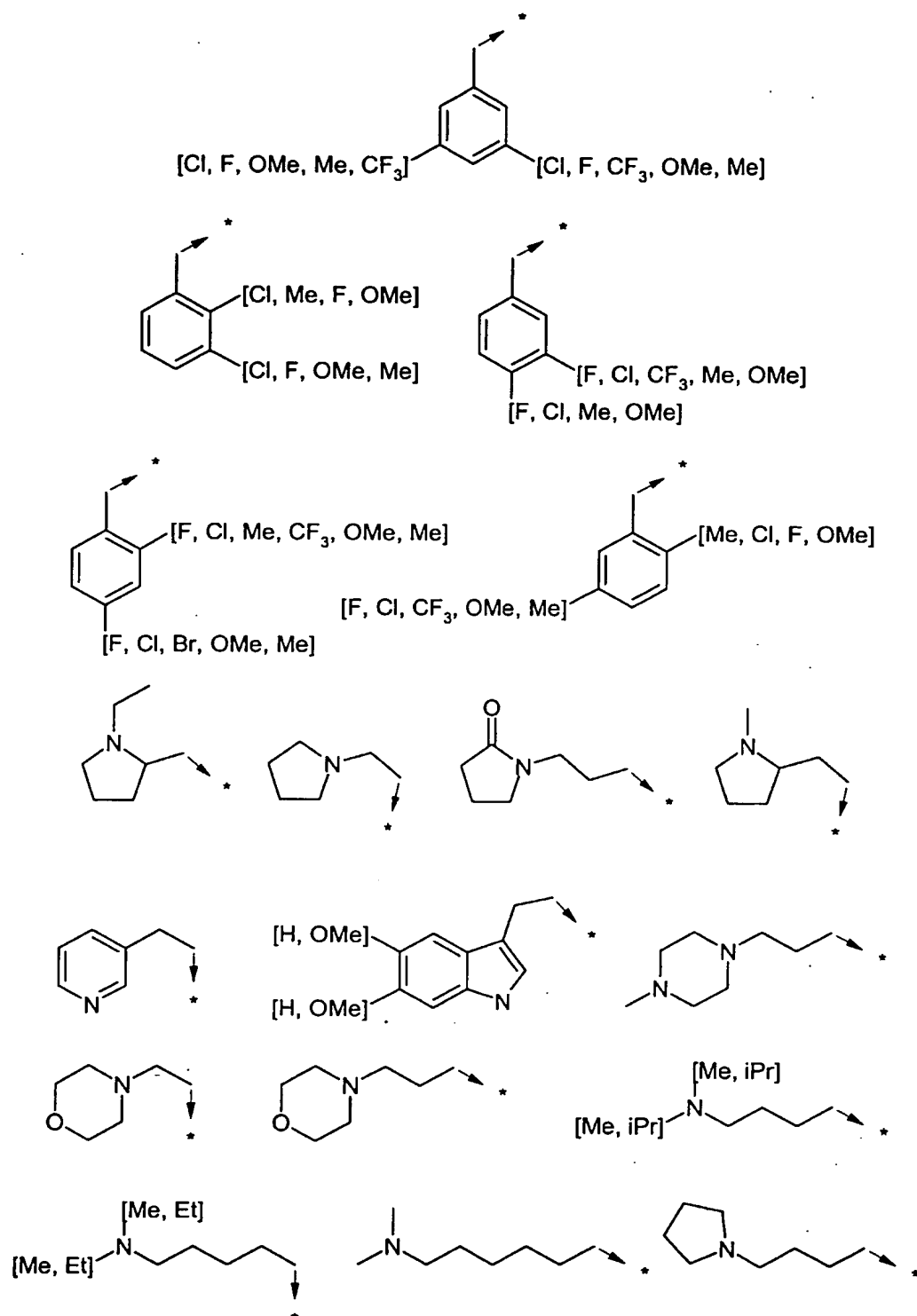
18 µl (105 µmol ; 2 éq.) de β-(3,4-diméthoxyphényl)éthylamine et 12,6 µl (105 µmol ;
5 2 éq.) de phénylisothiocyanate sont agités dans 1 ml de DMF pendant 18 heures. La
thiourée est ajoutée à 100 mg (52,5 µmol ; taux de charge de 0,525 mmol/g) de résine
(préparation 22) et le mélange chauffé à 80°C pendant 3 heures. La résine est alors
filtrée puis lavée successivement avec du DMF (5 x 1 ml), du méthanol (5 x 1 ml) puis
du DCM (5 x 1 ml). Sécher la résine sous vide avant d'ajouter 1 ml de mélange
10 DCM/TFA 50%. On agite 1,5 heures à température ambiante, filtre et rince la résine au
DCM. Le résidu récupéré après évaporation est ensuite élué avec du méthanol dans une
cartouche d'alumine basique pour isoler 22,2 mg (rendement quantitatif ; pureté UV de
93,4% à 230 nm) de solide marron correspondant à l'amine libre.

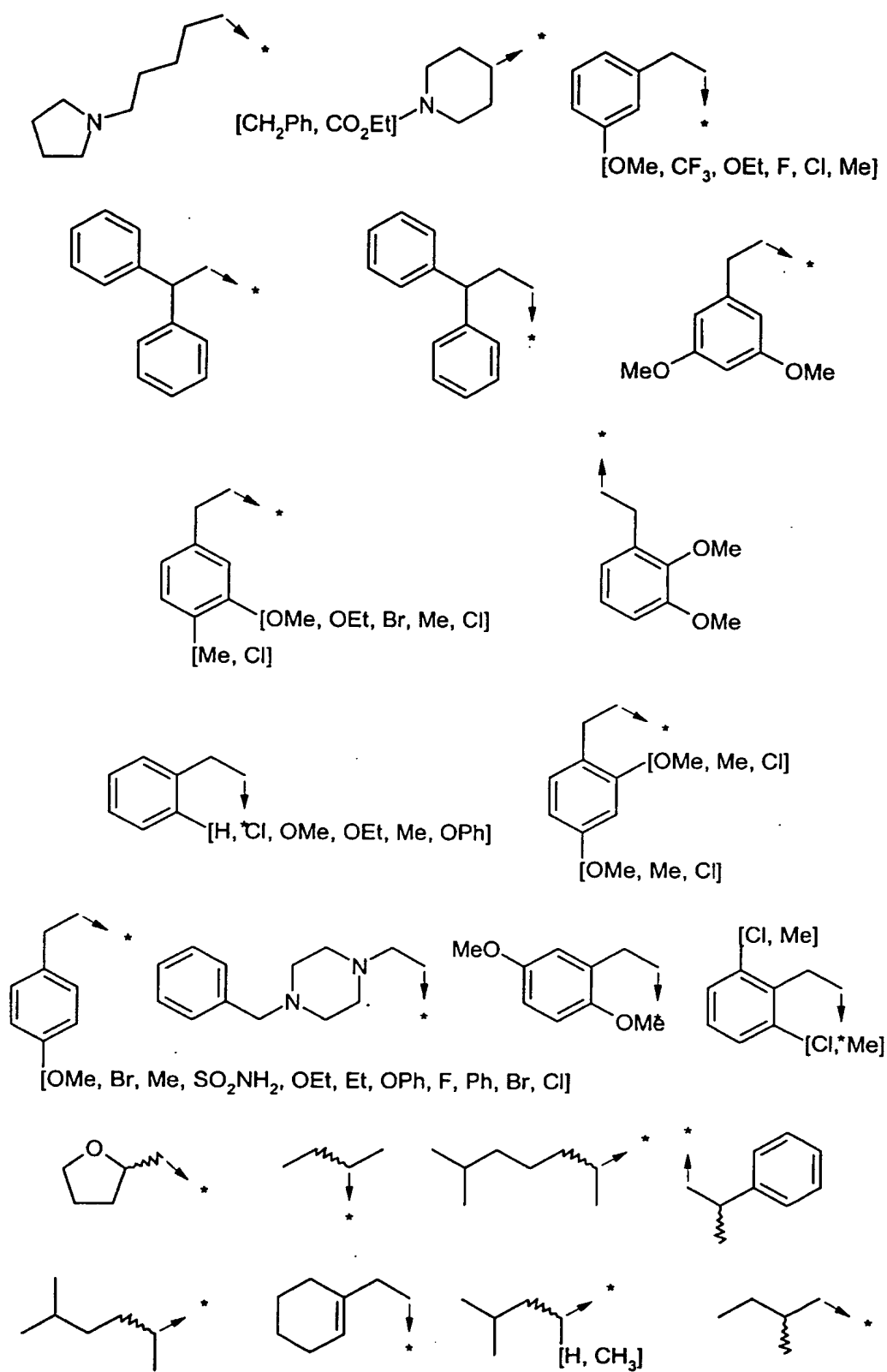
RMN ¹H (DMSO D6, 100 MHz, δ) : 8,42 (m, 1H, NH) ; 7,32 (t, 2H, J = 7,1 Hz) ; 7,08-
15 6,63 (m, 6H) ; 5,76 (s, 1H, Hazole) ; 4,31 (t, 2H, J = 6,6 Hz) ; 3,72 (s, 6H, OCH₃) ;
3,32 (s large, 2H) ; 3,17 (m, 2H) ; 2,89 (m, 2H) ; 2,62 (m, 2H).
SM/CL : m/z = 427,17 (M+H)⁺.

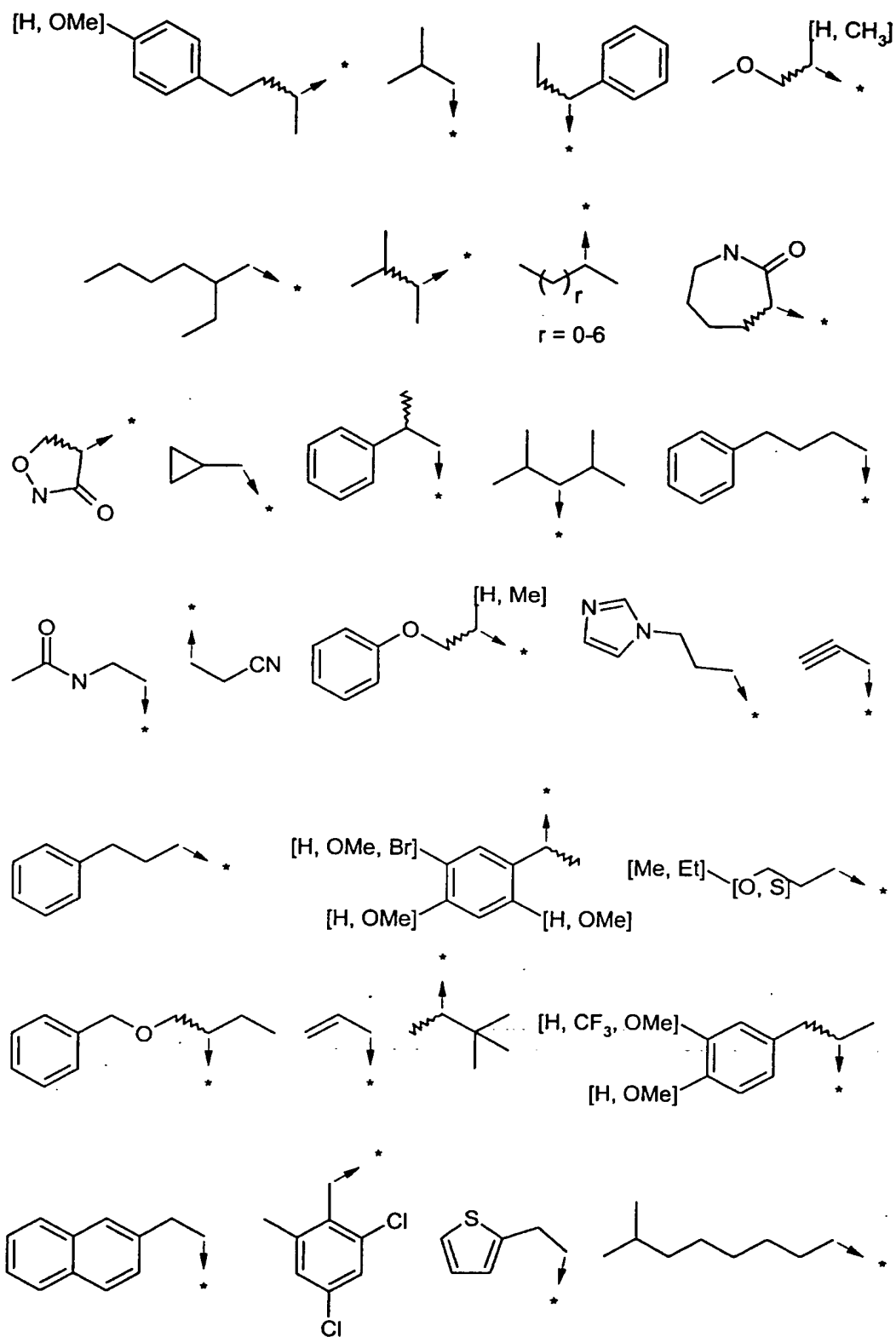
Une série de 2-arylimino-1,3-thiazole-4(3*H*)-carboxamides a été synthétisée selon la méthode E à l'aide de notre système robotique (ACT MOS 496) :

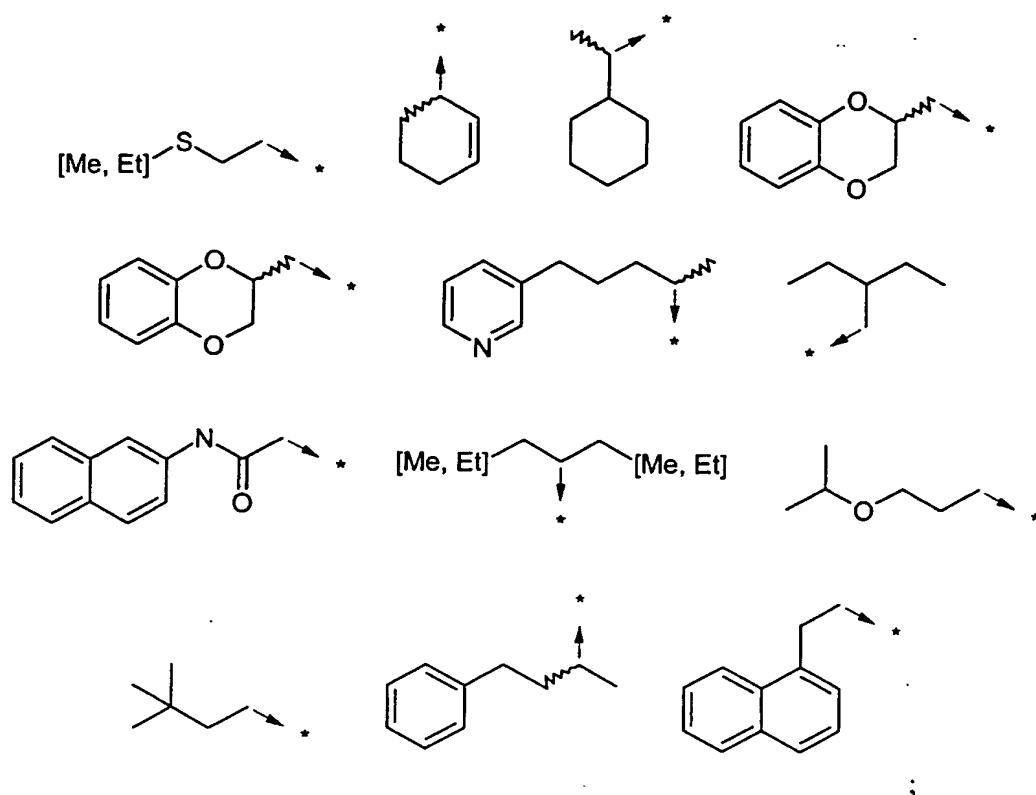
- Groupes R1 :



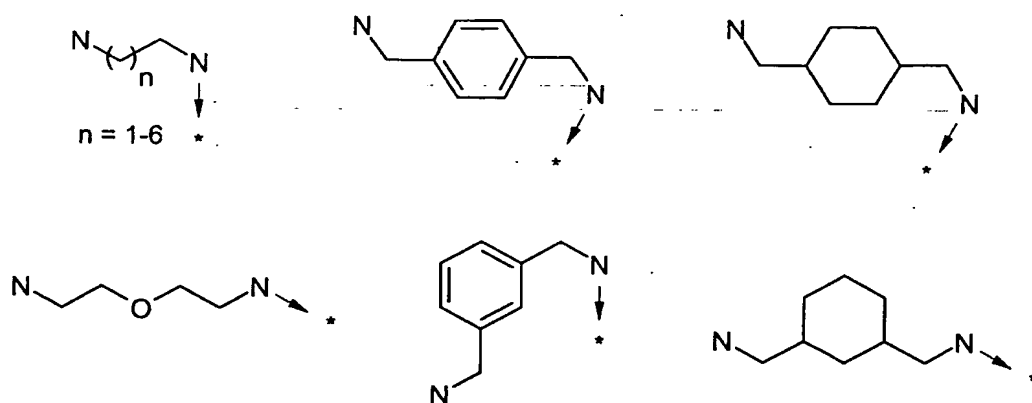


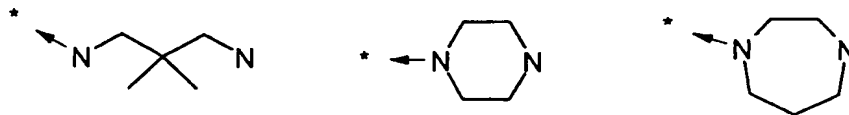






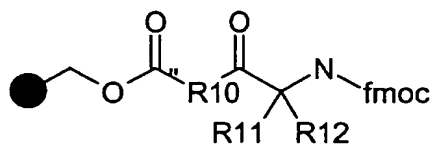
- Groupes R2 déjà décrits dans la méthode A
- R3 = -CO-R5
- R4 = H
- Groupes R5 :





METHODE F

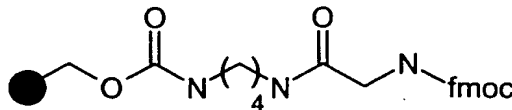
Préparation des résines diamines monoprotégées fonctionnalisées avec des acides aminés N-protégés (Fmoc)



- Procédure générale : le couplage peptidique des résines diamines monoprotégées avec des acides aminés N-Fmoc (4 à 10 éq.) commercialement disponibles (Bunin, B.A. *The Combinatorial Index*, Academic Press, 1998, p. 77-82) s'effectue dans le DMF à température ambiante pendant 1 à 24 heures avec différents agents de couplage classiques (4 à 10 éq.) tels que le dicyclohexylcarbodiimide (DCC), le diisopropylcarbodiimide (DIC), un mélange DIC/N-hydroxybenzotriazole (HOBt), l'hexafluorophosphate de benzotriazolylxytris(diméthylamino)phosphonium (PyBOP), l'hexafluorophosphate de 2-(1H-benzotriazol-1-yl)-1,1,3,3-tétraméthyluronium (HBTU) ou le tétrafluoroborate de 2-(1H-benzotriazol-1-yl)-1,1,3,3-tétraméthyluronium (TBTU). La résine est ensuite successivement lavée avec du DMF et du DCM. La séquence de couplage peut être répétée (1 à 2 fois) jusqu'à ce que le test ninhydrine de Kaiser soit négatif.

Préparation 23

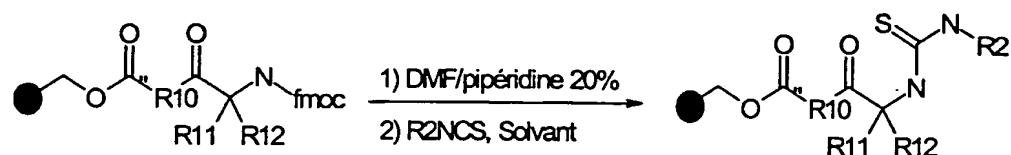
Résine de Wang N-carbamate de 4-[[[(9H-fluoren-9-ylméthoxy)carbonyl]amino]acétyl]amino]butyle



L'acide Fmoc-Gly-OH (2,36 g, 7,94 mmol) est activé avec de l'HOBt (1,07 g, 7,94 mmol) et du DIC (1,25 ml, 7,94 mmol) dans 22 ml de DMF pendant 5 minutes avant

d'ajouter le mélange à la résine de Wang N-carbamate de butylamine (1 g, taux de charge de 0,794 mmol/g) prégonflée dans 10 ml de DMF. Après 18 heures d'agitation à température ambiante, la résine est lavée successivement au DMF (5 x 20 ml) puis au DCM (5 x 20 ml) avant d'être séchée sous vide. 1,27 g de résine jaune pâle est ainsi obtenu présentant un test ninhydrine de Kaiser négatif.

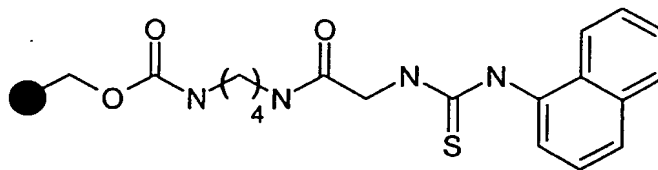
Préparation des résines thiourées



Procédure générale : une résine décrite ci-dessus est déprotégée avec un mélange DMF/pipéridine à 20%. Après une heure d'agitation à température ambiante, la résine est filtrée et lavée successivement au DMF puis au DCM. La séquence de déprotection/lavage est répétée une seconde fois et la résine est séchée sous vide. Cette dernière est prégonflée dans un solvant tel que le DMF ou le DCM puis un isothiocyanate aromatique ou hétéroaromatique (5 à 10 éq.) est ajouté. Le mélange est agité 2 à 24 heures à température ambiante avant de filtrer et laver la résine successivement au DMF puis au DCM. La résine est alors séchée sous vide et un test ninhydrine de Kaiser négatif confirme que la réaction de substitution est complète.

Préparation 24

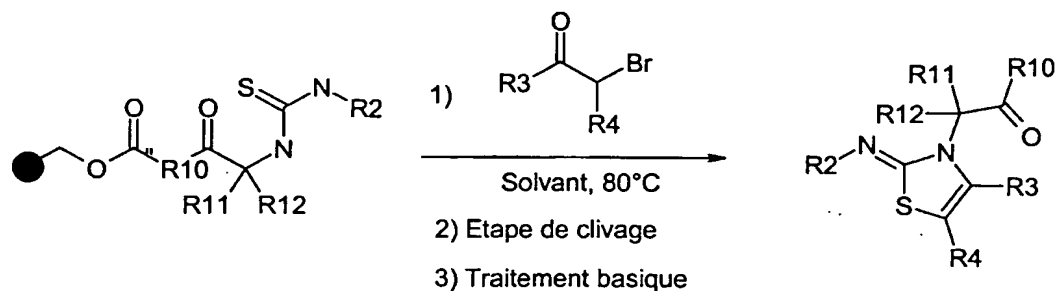
15 Résine de Wang N-carbamate de 4-[[[(1-naphthylamino)carbothiioyl]amino}acétyl]amino]butyle



1,27 g de résine ci-dessus (voir préparation 23) sont déprotégés avec 14 ml de DMF/pipéridine à 20%. Le mélange est agité une heure à température ambiante. La résine est alors filtrée puis lavée au DMF (5 x 30 ml) puis au DCM (5 x 30 ml). La séquence de déprotection/lavage est répétée une fois avant de sécher sous vide la résine. 0,781 g de résine jaune pâle a ainsi été obtenue avec un taux de charge de 0,758 mmol/g

calculé d'après l'analyse élémentaire du soufre. A 0,3 g (0,22 mmol) de cette résine thiourée sont additionnés 416 mg (2,2 mmol, 10 éq.) de 1-naphthylisothiocyanate dilués dans 6 ml de DMF. Le mélange est agité 18 heures à température ambiante. La résine est filtrée puis lavée successivement au DMF (5 x 20 ml) puis au DCM (5 x 20 ml). 310 mg de résine jaune pâle sont isolés après séchage sous vide avec un taux de charge de 0,66 mmol/g calculé d'après l'analyse élémentaire de l'azote.

Synthèse de 2-arylimino-2,3-dihydrothiazoles

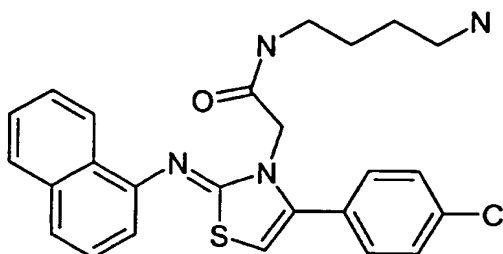


Procédure générale : l'étape de cyclisation régiosélective s'effectue dans des solvants aprotiques comme le dioxane, le DMF ou la N-méthylpyrrolidone à 80 °C pendant 2 à 3 heures entre la résine thiourée et l' α -bromocétone (2 à 5 éq.). La résine est alors lavée successivement avec du DMF, du méthanol et du DCM puis séchée sous pression réduite. La résine 2-arylimino-2,3-dihydrothiazole est clivée dans des conditions acides (DCM/acide trifluoroacétique à 50%) pendant 1 à 2 heures puis rincée avec du DCM. Le solvant est évaporé et la base libre isolée après traitement dans des conditions basiques (solution saturée en hydrogénocarbonate de sodium) suivi d'une extraction avec du DCM ou élution avec du méthanol dans une cartouche d'alumine basique (500 mg, Interchim).

Exemple 6

N-(4-aminobutyl)-2-((2Z)-4-(4-chlorophényl)-2-(1-naphthylimino)-1,3-thiazol-3(2H)-yl)acétamide

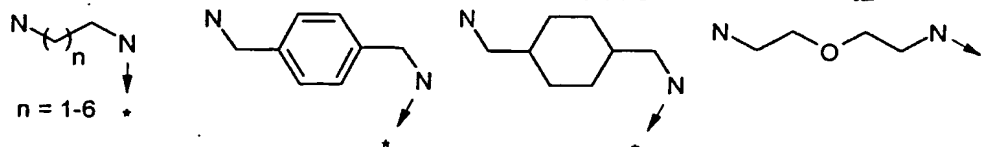
($\text{C}_{25}\text{H}_{25}\text{ClN}_4\text{OS}$, MM = 465,02) :

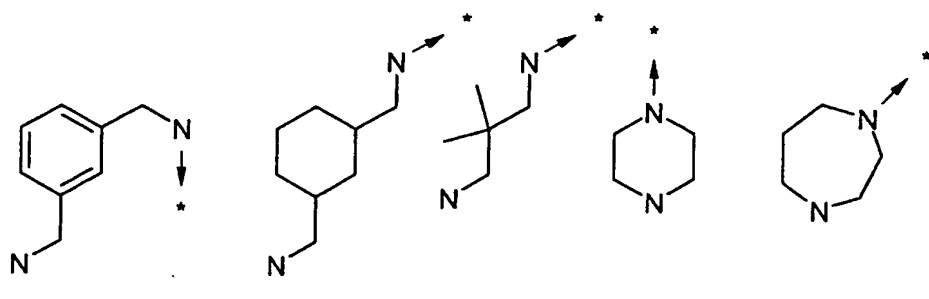


- 80 mg (52,8 μ mol, taux de charge de 0,66 mmol/g) de résine thiourée (préparation 24) et 25,1 mg (105,6 mmol, 2 éq.) de 2-bromo-4'-chloroacétophénone sont dilués dans 1 ml de DMF. Le mélange est chauffé à 80°C pendant 2 heures. La résine est filtrée puis lavée avec du DMF (5 x 1 ml), du méthanol (5 x 1 ml) puis du DCM (5 x 1 ml) avant d'être séchée sous vide. On ajoute 1 ml de mélange DCM/TFA 50% et on agite pendant 1,5 heures. La résine est filtrée et rincée au DCM. Le filtrat est évaporé puis redilué dans du méthanol pour élution sur alumine basique. 20,6 mg (rendement de 84% ; pureté UV de 94,2 % à 220 nm) de solide jaune sont ainsi isolés après évaporation correspondant à la base libre.
- 10 RMN ^1H (DMSO D_6 , 100 MHz, δ) : 8,36 (t, 1H, $J = 4,7$ Hz, NH) ; 8,12 (dd, 1H, $J = 2,1$ et 7,3 Hz) ; 7,87 (dd, 1H, $J = 2,7$ et 6,3 Hz) ; 7,63-7,34 (m, 8H) ; 7,13 (dd, 1H, $J = 1,6$ et 6,7 Hz) ; 6,33 (s, 1H, H_{azole}) ; 4,44 (s large, 2H) ; 3,14 (m, 2H) ; 2,7 (m, 2H) ; 1,5 (m, 4H). SM/CL : $m/z = 465,21$ ($\text{M}+\text{H}^+$).

- Une série de 2-arylimino-2,3-dihydrothiazoles a été synthétisée selon la méthode F à l'aide de notre système robotique (ACT MOS 496) :

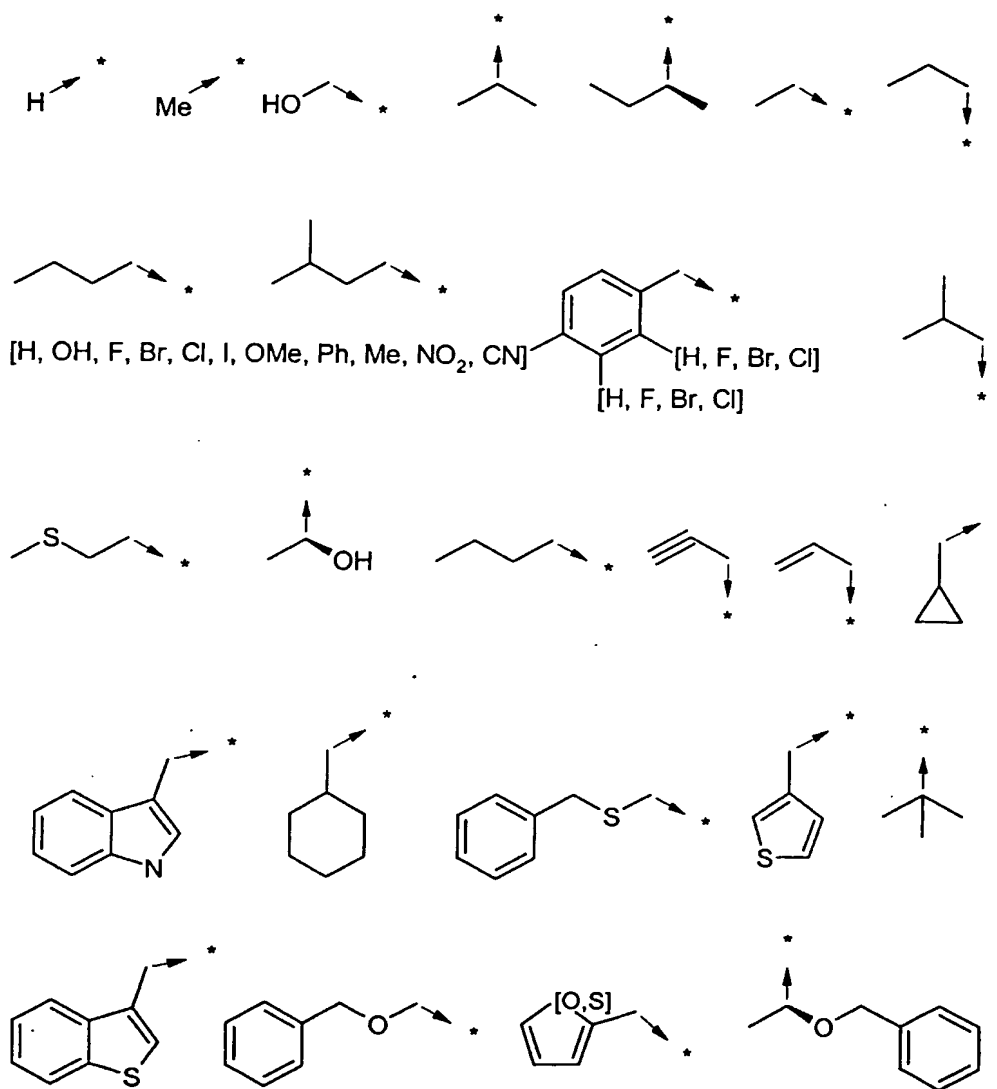
- $\text{R1} = -\text{C}(\text{R11R12})-\text{CO}-\text{R10}$
- Groupes R2, R3 et R4 déjà décrits dans la méthode A
- Groupes R10 :

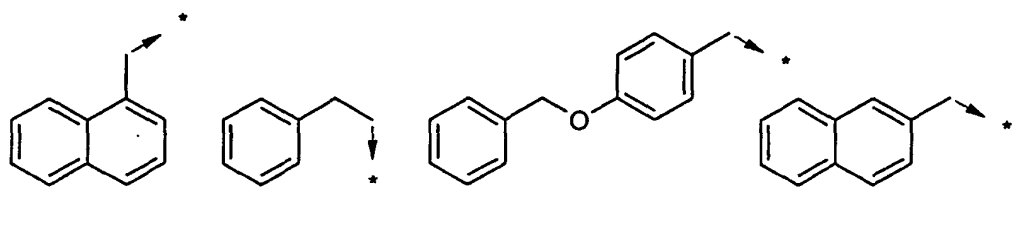




- R11 = H

- Groupes R12 :





EXEMPLES

Ci-après sont repris dans des tableaux des exemples obtenus selon les méthodes A, B, C, D, E et F décrites ci-dessus. Ces exemples sont présentés pour illustrer les procédures ci-dessus et ne doivent en aucun cas être considérés comme une limite à la portée de l'invention.

Les composés obtenus ont été caractérisés grâce à leur temps de rétention (t_r) et à la spectrométrie de masse $(M+H)^+$.

Les chromatogrammes sont obtenus à partir d'un appareil de chromatographie liquide haute performance (Hewlett-Packard 1100) équipé d'un détecteur UV à balayage. Les conditions suivantes ont été employées pour les mesures des temps de rétention par chromatographie liquide haute performance, sachant que la longueur d'onde d'extraction de chacun des chromatogrammes est de 220 nm :

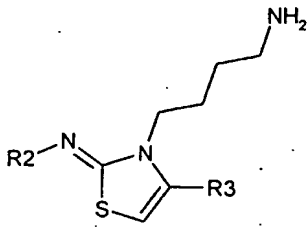
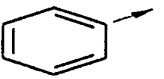
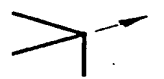
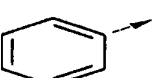
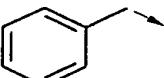
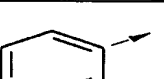
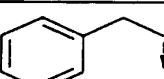
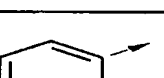
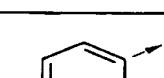
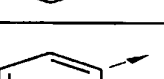
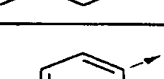
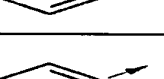
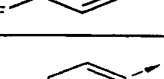
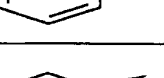
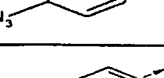
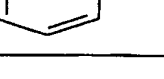
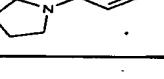
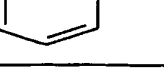
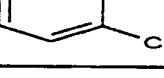
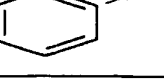
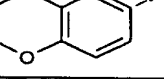
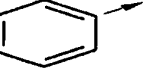
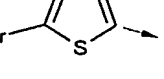
| t (min.) | A (%) | B (%) |
|----------|-------|-------|
| 0 | 90 | 10 |
| 6 | 15 | 85 |
| 8 | 15 | 85 |

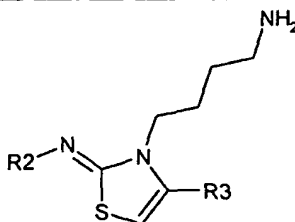
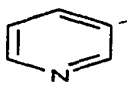
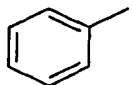
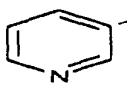
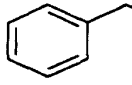
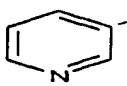
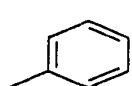
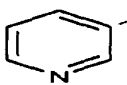
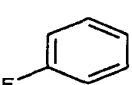
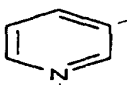
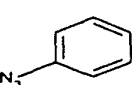
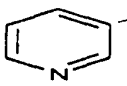
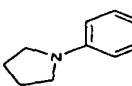
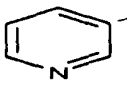
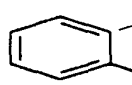
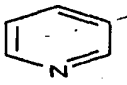
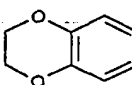
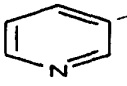
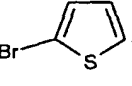
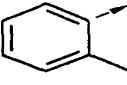

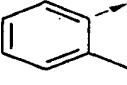
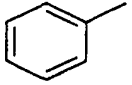
Eluant A : eau + 0,02% d'acide trifluoroacétique ; éluant B : acétonitrile.

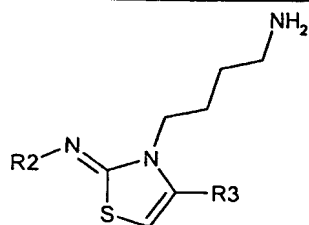
Débit : 1 ml/min ; volume injecté : 5 μ l ; température : 40 °C. Colonne : Uptisphère 3 μ m ODS, 50 x 4,6 mm i.d. (Interchim)

Les spectres de masse sont obtenus à partir d'un spectromètre de masse simple quadripôle équipé d'une source électrospray (Micromass, Plateforme II).

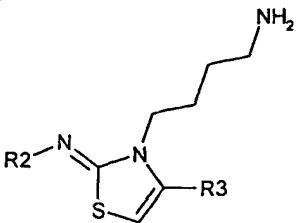
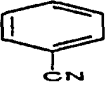
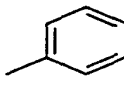
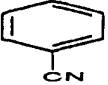
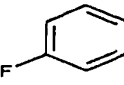
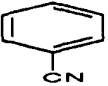
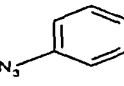
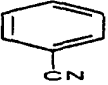
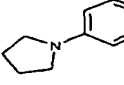
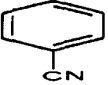
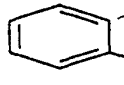
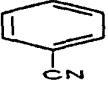
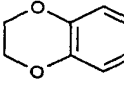
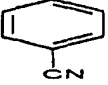
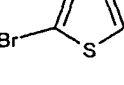
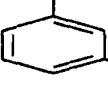
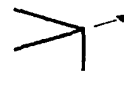
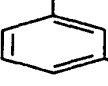
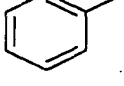
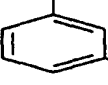
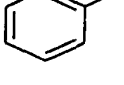
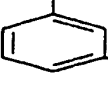
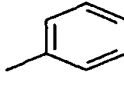
- 96 -

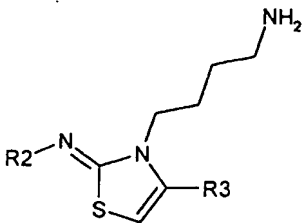
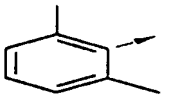
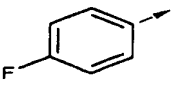
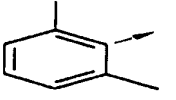
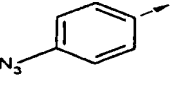
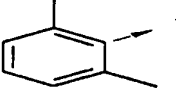
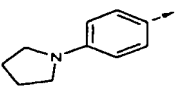
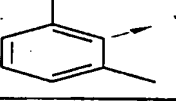
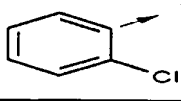
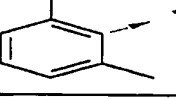
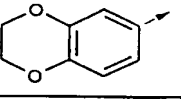
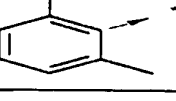
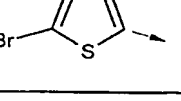
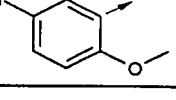
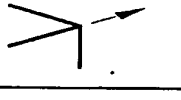
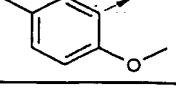
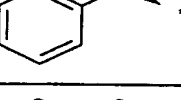
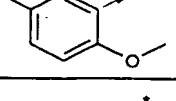

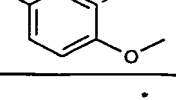
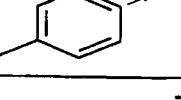
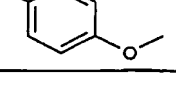
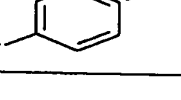
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 7 |  |  | 91,2 | 3,09 | 304,2 |
| 8 |  |  | 93,1 | 3,38 | 338,2 |
| 9 |  |  | 94 | 3,56 | 352,2 |
| 10 |  |  | 93,3 | 3,42 | 338,2 |
| 11 |  |  | 96,6 | 3,25 | 342,2 |
| 12 |  |  | 96,4 | 3,46 | 365,2 |
| 13 |  |  | 91,9 | 3,86 | 393,2 |
| 14 |  |  | 96,4 | 3,44 | 358,2 |
| 15 |  |  | 95,6 | 3,34 | 382,2 |
| 16 |  |  | 94,5 | 3,7 | 408 |
| 17 |  |  | 54,43 | 2,9 | 305,2 |

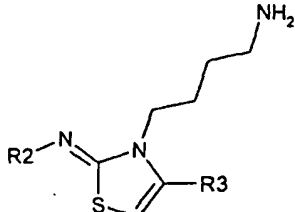
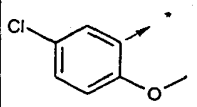
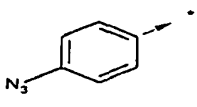
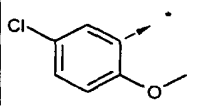
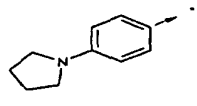
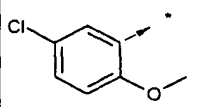
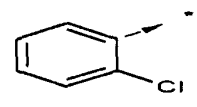
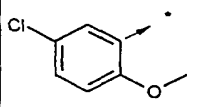
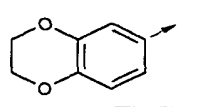
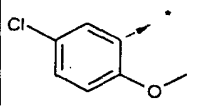
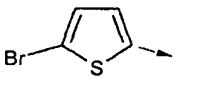
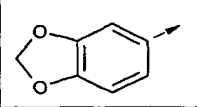
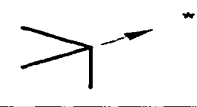
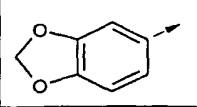
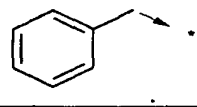
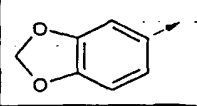
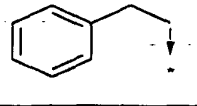
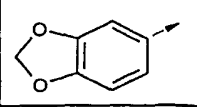
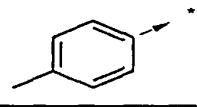
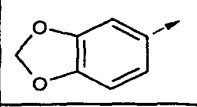
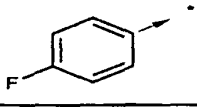
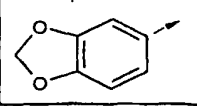
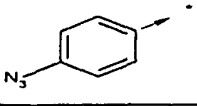
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 18 |  |  | 50,4 | 3,14 | 339,2 |
| 19 |  |  | 48,9 | 3,38 | 535,2 |
| 20 |  |  | 39,3 | 3,26 | 339,2 |
| 21 |  |  | 49,5 | 3,06 | 343,2 |
| 22 |  |  | 42,3 | 3,29 | 366,2 |
| 23 |  |  | 43,4 | 3,7 | 394,3 |
| 24 |  |  | 56,7 | 3,16 | 359,2 |
| 25 |  |  | 45,3 | 3,09 | 383,2 |
| 26 |  |  | 45,7 | 3,3 | 409 |
| 27 |  |  | 96,8 | 3,41 | 332,3 |
| 28 |  |  | 92,8 | 3,7 | 366,3 |



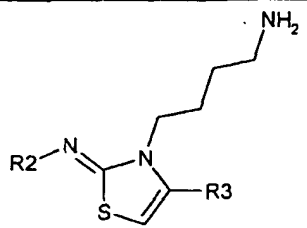
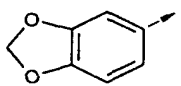
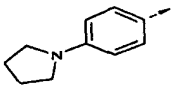
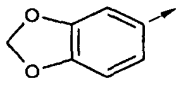
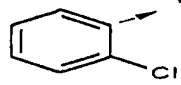
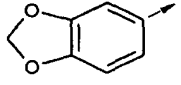
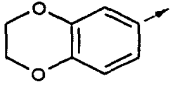
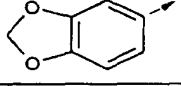
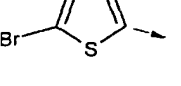
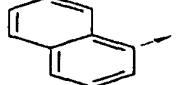

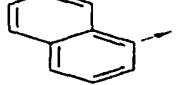
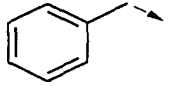
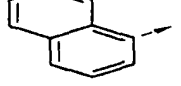
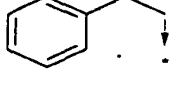
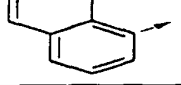
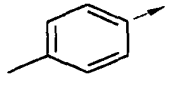
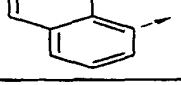
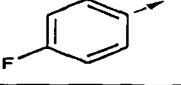
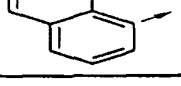
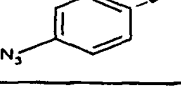
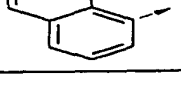
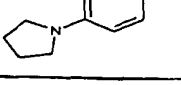
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
|-----|----|----|------------|-----------|--------------------|
| 29 | | | 90,6 | 3,84 | 380,3 |
| 30 | | | 93,7 | 3,76 | 366,3 |
| 31 | | | 94,4 | 3,63 | 370,2 |
| 32 | | | 89,1 | 3,82 | 393,2 |
| 33 | | | 90,1 | 4,12 | 410,2 |
| 34 | | | 96,7 | 3,83 | 386,2 |
| 35 | | | 95,8 | 3,67 | 410,2 |
| 36 | | | 93,4 | 4,17 | 436,1 |
| 37 | | | 88,4 | 3,64 | 329,25 |
| 38 | | | 91,8 | 4,03 | 363,2 |
| 39 | | | 88,6 | 4,15 | 377,2 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 40 |  |  | 94,1 | 4,22 | 363,2 |
| 41 |  |  | 95,2 | 4,1 | 376,2 |
| 42 |  |  | 92,8 | 4,35 | 390,2 |
| 43 |  |  | 94,1 | 4,54 | 418,2 |
| 44 |  |  | 95 | 4,34 | 383,1 |
| 45 |  |  | 95,1 | 4,06 | 407,2 |
| 46 |  |  | 93 | 4,7 | 433,1 |
| 47 |  |  | 96,4 | 3,32 | 332,3 |
| 48 |  |  | 92,9 | 3,62 | 366,3 |
| 49 |  |  | 95,6 | 3,76 | 380,3 |
| 50 |  |  | 95,6 | 3,64 | 366,33 |

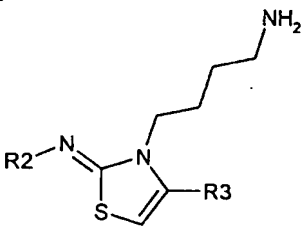
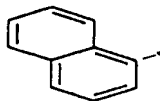
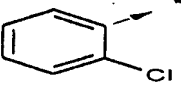
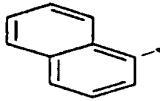
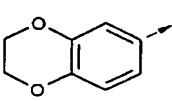
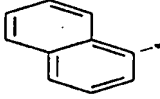
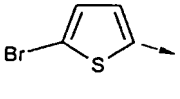
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 51 |  |  | 96 | 3,51 | 370,2 |
| 52 |  |  | 87 | 3,69 | 390,2 |
| 53 |  |  | 80,9 | 4,04 | 421,3 |
| 54 |  |  | 97,1 | 3,7 | 436,1 |
| 55 |  |  | 94,6 | 3,59 | 410,2 |
| 56 |  |  | 95,6 | 3,92 | 436,1 |
| 57 |  |  | 82,1 | 3,66 | 368,2 |
| 58 |  |  | 90,7 | 3,94 | 402,2 |
| 59 |  |  | 85,5 | 4,06 | 416,2 |
| 60 |  |  | 94,4 | 4,09 | 402,2 |
| 61 |  |  | 95,1 | 3,99 | 406,2 |

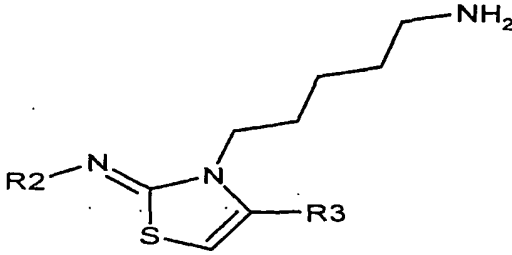
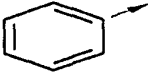
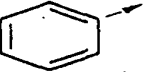
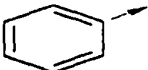
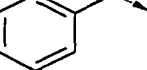
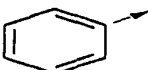
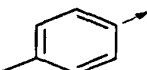

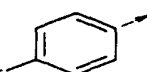

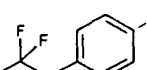
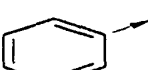
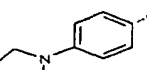

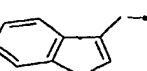

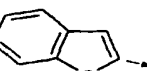
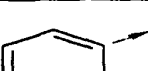
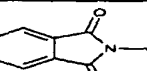
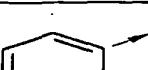
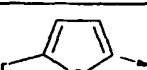
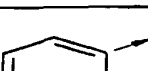
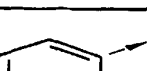
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 62 |  |  | 93,6 | 4,21 | 429,2 |
| 63 |  |  | 93,6 | 4,39 | 457,2 |
| 64 |  |  | 96 | 4,22 | 422,1 |
| 65 |  |  | 91,6 | 3,96 | 446,2 |
| 66 |  |  | 94,5 | 4,65 | 472 |
| 67 |  |  | 97 | 3,07 | 348,2 |
| 68 |  |  | 93,6 | 3,36 | 382,2 |
| 69 |  |  | 93,4 | 3,54 | 396,2 |
| 70 |  |  | 94,7 | 3,41 | 382,1 |
| 71 |  |  | 96,3 | 3,24 | 386,2 |
| 72 |  |  | 94,5 | 3,44 | 409,1 |

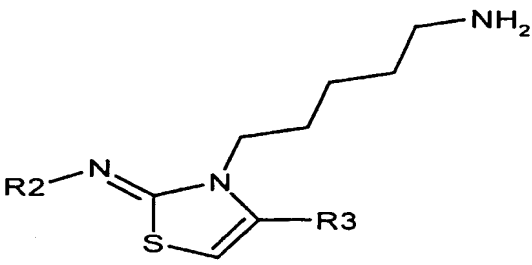
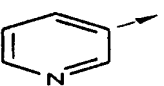
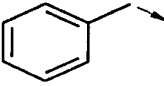
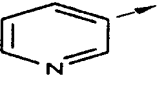
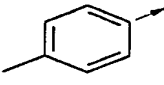
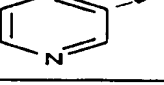
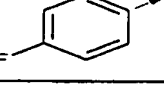
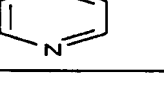
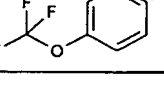
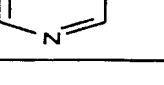
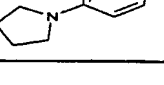
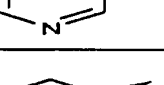
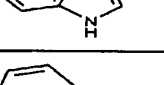
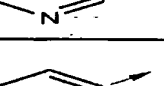
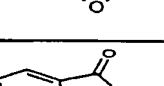
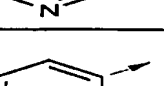

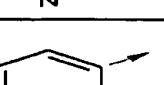
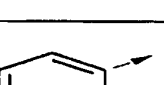
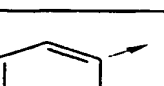
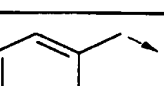


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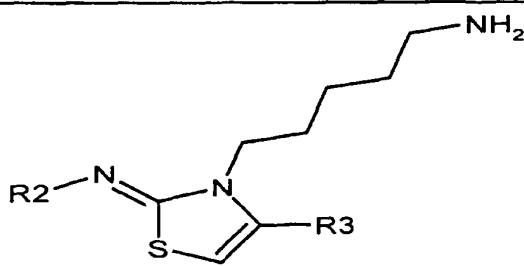
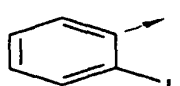
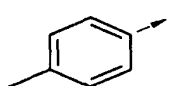
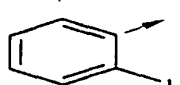
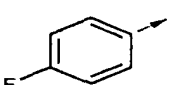
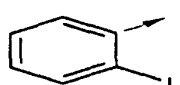
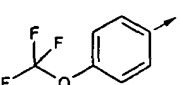
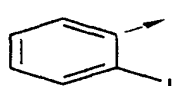
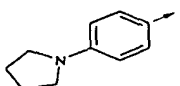
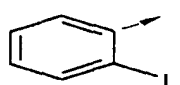
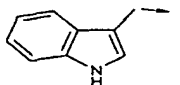
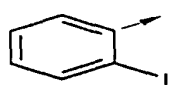
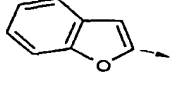
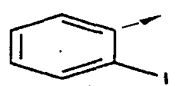
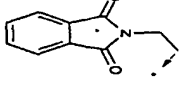
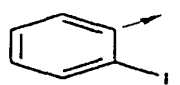
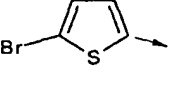
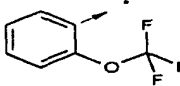
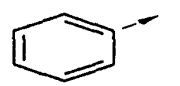
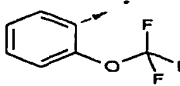
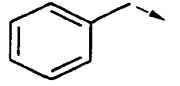
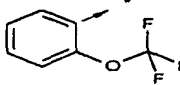
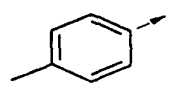
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 73 |  |  | 93,4 | 3,83 | 437,2 |
| 74 |  |  | 95,4 | 3,41 | 402,1 |
| 75 |  |  | 95,7 | 3,32 | 426,2 |
| 76 |  |  | 92,4 | 3,64 | 452,2 |
| 77 |  |  | 98,1 | 3,66 | 324,2 |
| 78 |  |  | 91,2 | 3,98 | 388,2 |
| 79 |  |  | 81,9 | 4,09 | 402,2 |
| 80 |  |  | 96,1 | 4,12 | 388,2 |
| 81 |  |  | 96,1 | 4,03 | 392,2 |
| 82 |  |  | 94,2 | 4,24 | 415,2 |
| 83 |  |  | 93,3 | 4,39 | 443,3 |

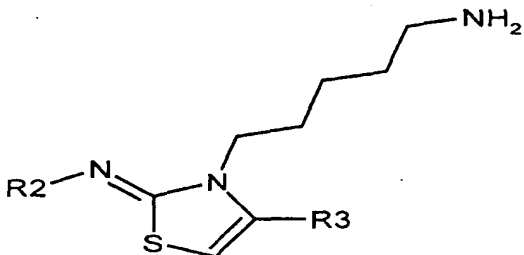
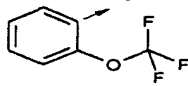
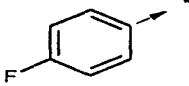
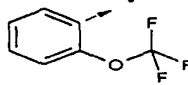
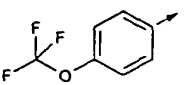
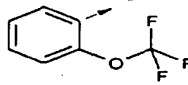
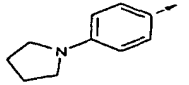
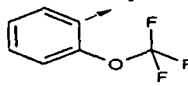
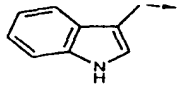
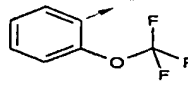
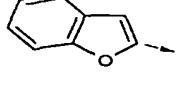
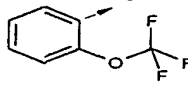
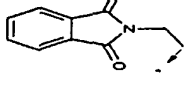
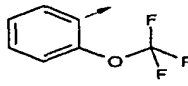
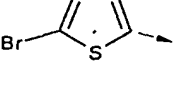
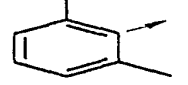
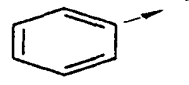
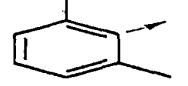
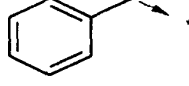
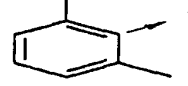
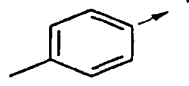
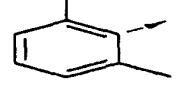
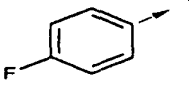
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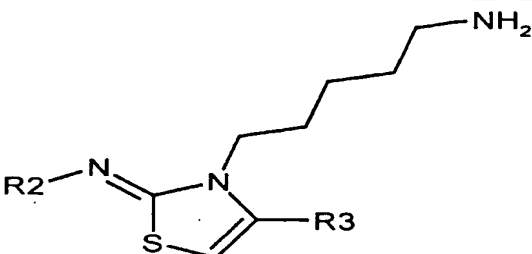
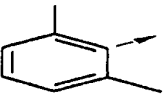
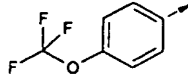
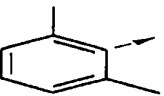
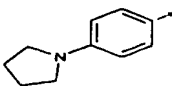
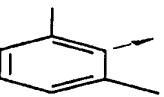
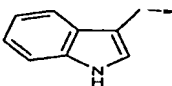
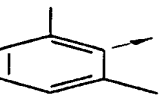
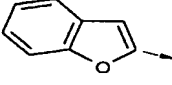
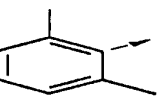
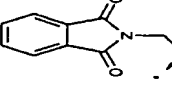
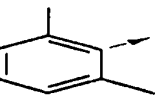
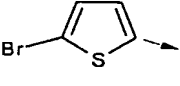
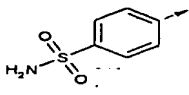
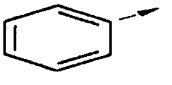
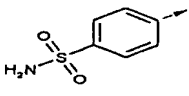
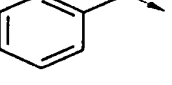
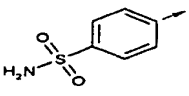
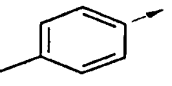
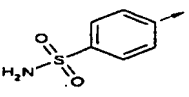
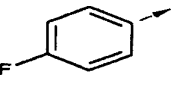
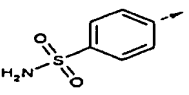
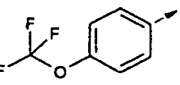
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|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 84 |  |  | 96,3 | 4,28 | 408,1 |
| 85 |  |  | 94,2 | 4.0 | 432,2 |
| 86 |  |  | 95,6 | 4,7 | 458,1 |

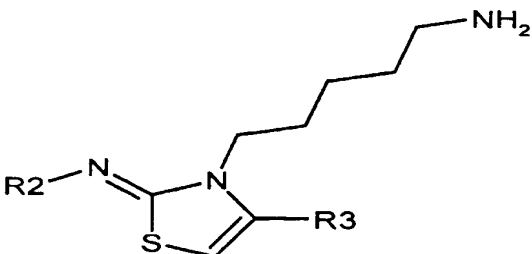
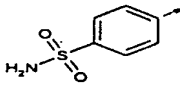
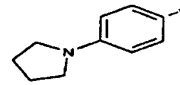
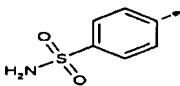
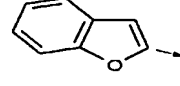
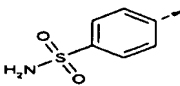
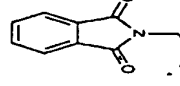
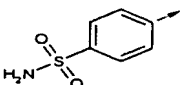
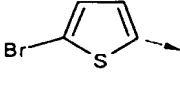
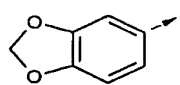
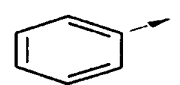
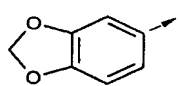
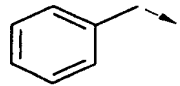
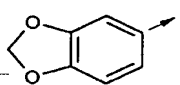
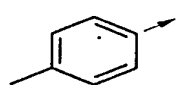
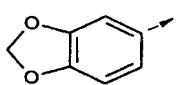
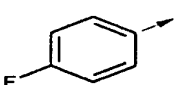
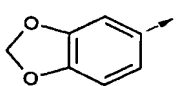
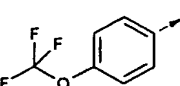
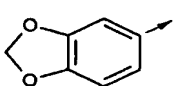
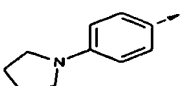
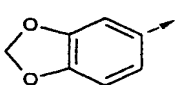
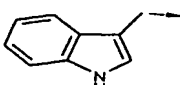
|  | | | | | |
|--|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 87 |  |  | 97 | 3,35 | 338,2 |
| 88 |  |  | 94 | 3,51 | 352,3 |
| 89 |  |  | 94 | 3,58 | 352,3 |
| 90 |  |  | 97 | 3,42 | 356,2 |
| 91 |  |  | 86 | 4,01 | 422,2 |
| 92 |  |  | 96 | 3,99 | 407,3 |
| 93 |  |  | 7 | 3,65 | 391,3 |
| 94 |  |  | 92 | 4,11 | 378,2 |
| 95 |  |  | 95 | 3,43 | 435,2 |
| 96 |  |  | 97 | 3,91 | 422,1 |
| 97 |  |  | 43 | 3,19 | 339,2 |

|  | | | | | |
|--|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 98 |  |  | 32 | 3,33 | 353,2 |
| 99 |  |  | 39 | 3,45 | 353,2 |
| 100 |  |  | 39 | 3,28 | 357,2 |
| 101 |  |  | 42 | 3,8 | 423,2 |
| 102 |  |  | 41 | 3,89 | 408,2 |
| 103 |  |  | 14 | 3,43 | 392,2 |
| 104 |  |  | 39 | 3,62 | 379,2 |
| 105 |  |  | 28 | 3,2 | 436,2 |
| 106 |  |  | 35 | 3,56 | 423,1 |
| 107 |  |  | 95 | 4,65 | 464,1 |
| 108 |  |  | 89 | 4,64 | 478,2 |

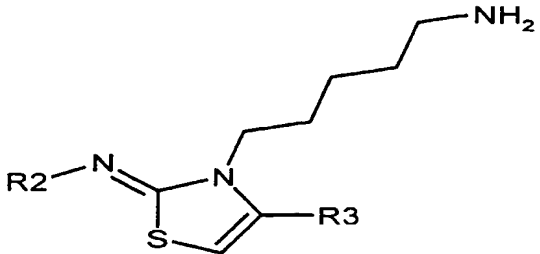
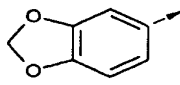
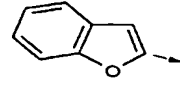
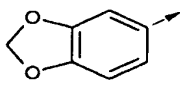
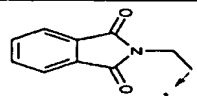
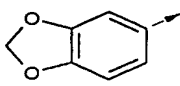
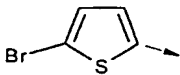
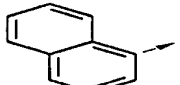
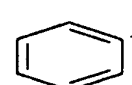
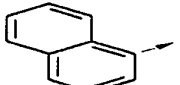
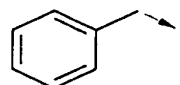
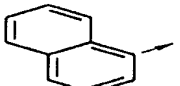
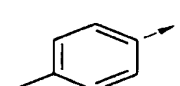
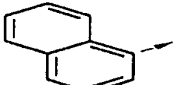
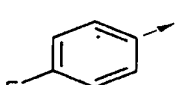
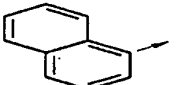
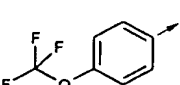
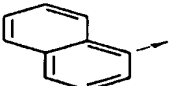
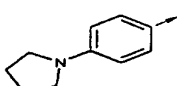
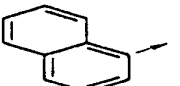
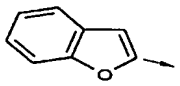
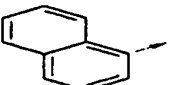
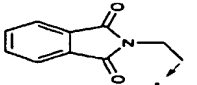
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|--|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 109 |  |  | 82 | 4,88 | 478,1 |
| 110 |  |  | 92 | 4,76 | 482,1 |
| 111 |  |  | 90 | 5,41 | 548,1 |
| 112 |  |  | 86 | 5,13 | 533,2 |
| 113 |  |  | 9 | 4,5 | 517,1 |
| 114 |  |  | 95 | 5,49 | 504,1 |
| 115 |  |  | 80 | 4,4 | 561,1 |
| 116 |  |  | 89 | 5,4 | 548,0 |
| 117 |  |  | 96 | 4,85 | 422,2 |
| 118 |  |  | 91 | 4,86 | 436,2 |
| 119 |  |  | 88 | 5,08 | 436,2 |

|  | | | | | |
|--|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 120 |  |  | 95 | 4,96 | 440,2 |
| 121 |  |  | 81 | 5,56 | 506,2 |
| 122 |  |  | 83 | 5,34 | 491,2 |
| 123 |  |  | 3 | 4,7 | 475,3 |
| 124 |  |  | 91 | 5,59 | 462,2 |
| 125 |  |  | 92 | 4,61 | 519,2 |
| 126 |  |  | 92 | 5,52 | 506,1 |
| 127 |  |  | 98 | 3,63 | 366,3 |
| 128 |  |  | 97 | 3,76 | 380,3 |
| 129 |  |  | 98 | 3,82 | 380,3 |
| 130 |  |  | 98 | 3,67 | 384,2 |

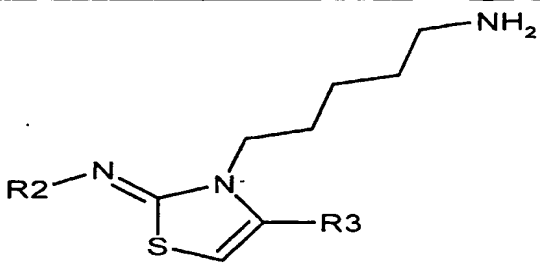
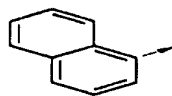
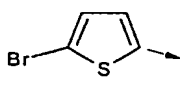
|  | | | | | |
|--|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 131 |  |  | 97 | 4,16 | 450,2 |
| 132 |  |  | 96 | 4,2 | 435,3 |
| 133 |  |  | 21 | 3,9 | 419,3 |
| 134 |  |  | 88 | 4,28 | 406,2 |
| 135 |  |  | 97 | 3,68 | 463,3 |
| 136 |  |  | 82 | 4,09 | 450,1 |
| 137 |  |  | 93 | 3,44 | 417,2 |
| 138 |  |  | 94 | 3,5 | 431,2 |
| 139 |  |  | 95 | 3,71 | 431,2 |
| 140 |  |  | 95 | 3,58 | 435,2 |
| 141 |  |  | 94 | 4,27 | 501,2 |

|  | | | | | |
|--|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 142 |  |  | 93 | 4,05 | 486,6 |
| 143 |  |  | 94 | 4,28 | 457,2 |
| 144 |  |  | 92 | 3,39 | 514,2 |
| 145 |  |  | 85 | 4,16 | 501,1 |
| 146 |  |  | 97 | 3,36 | 382,2 |
| 147 |  |  | 94 | 3,53 | 396,2 |
| 148 |  |  | 97 | 3,6 | 396,2 |
| 149 |  |  | 97 | 3,43 | 400,2 |
| 150 |  |  | 97 | 3,95 | 466,2 |
| 151 |  |  | 95 | 4,01 | 451,3 |
| 152 |  |  | 15 | 3,57 | 435,2 |

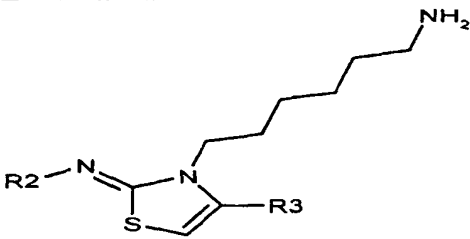
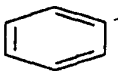
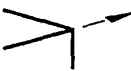
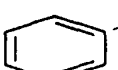
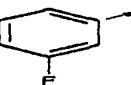
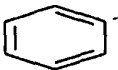
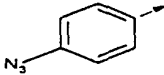
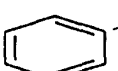
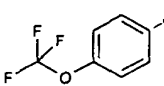
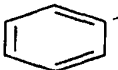
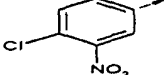
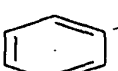
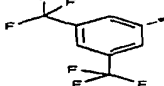
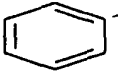
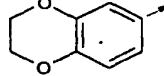
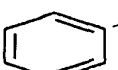
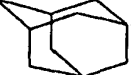
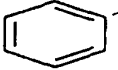
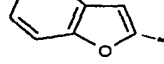
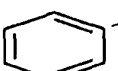
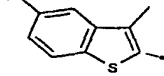
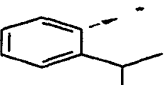
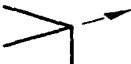
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|  | | | | | |
|--|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 153 |  |  | 94 | 4.0 | 422,2 |
| 154 |  |  | 95 | 3,45 | 479,3 |
| 155 |  |  | 95 | 3,84 | 466,1 |
| 156 |  |  | 96 | 4,11 | 388,2 |
| 157 |  |  | 90 | 4,14 | 402,2 |
| 158 |  |  | 96 | 4,31 | 402,2 |
| 159 |  |  | 96 | 4,21 | 406,2 |
| 160 |  |  | 97 | 4,83 | 472,3 |
| 161 |  |  | 95 | 4,57 | 457,3 |
| 162 |  |  | 96 | 5,12 | 428,2 |
| 163 |  |  | 88 | 4,01 | 485,3 |

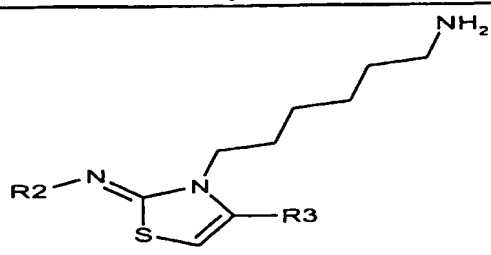
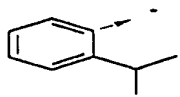
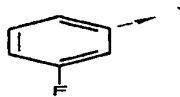
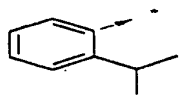
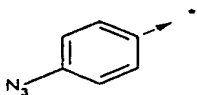
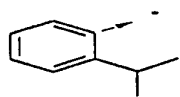
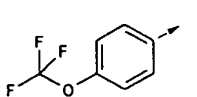
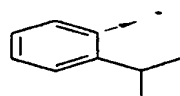
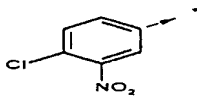
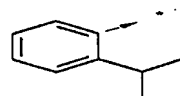
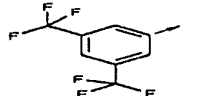
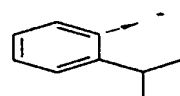
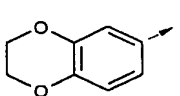
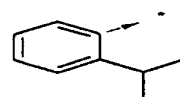
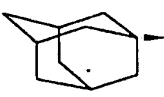
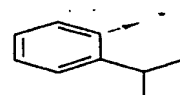
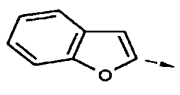
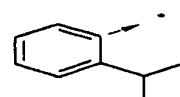
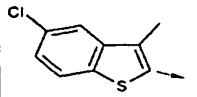
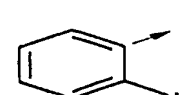

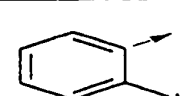
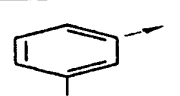
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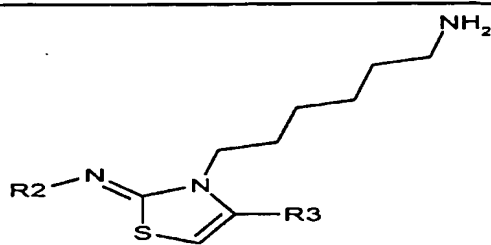
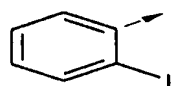
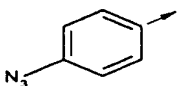
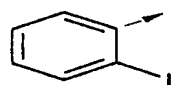
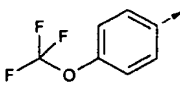
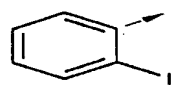
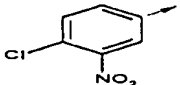
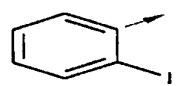
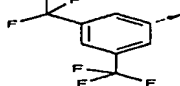
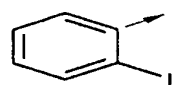
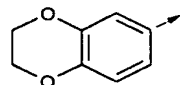
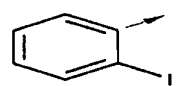
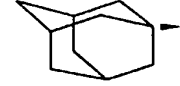
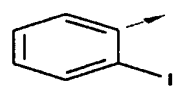
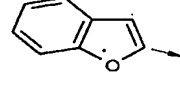
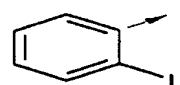
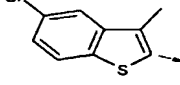
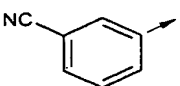
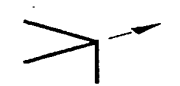
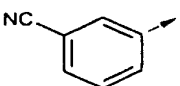
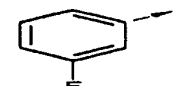
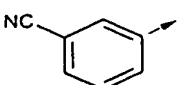
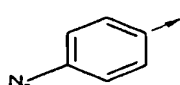
|  | | | | | |
|--|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 164 |  |  | 97 | 4,91 | 472,1 |

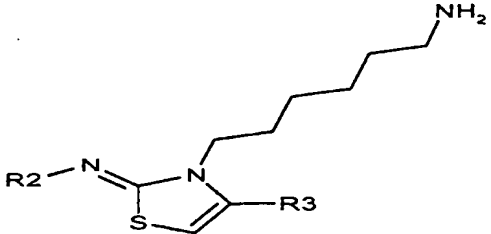
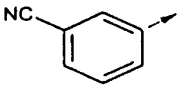
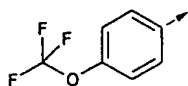
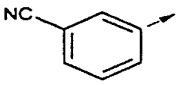
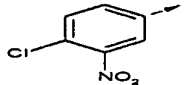
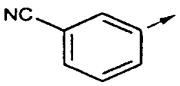
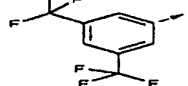
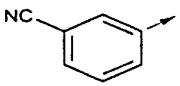
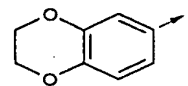
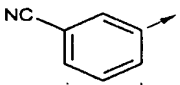
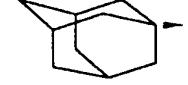
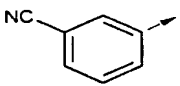
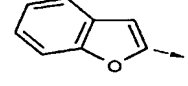
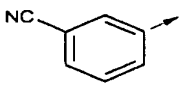
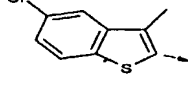
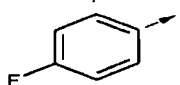

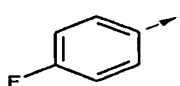

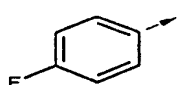
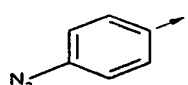
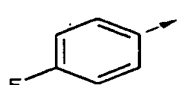
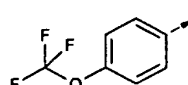
- 112 -

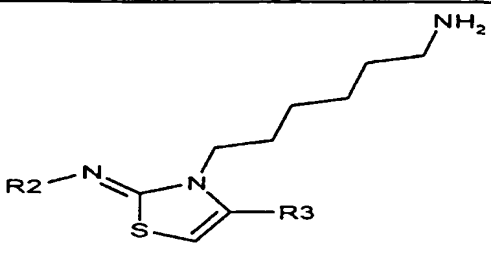
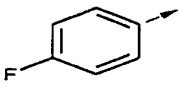
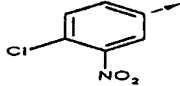
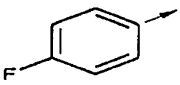
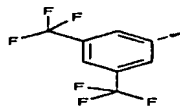
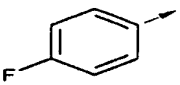
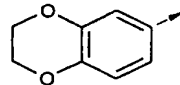
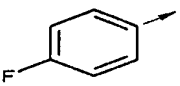
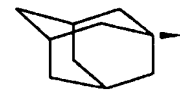
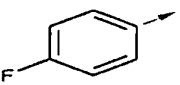
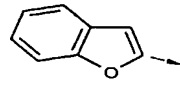
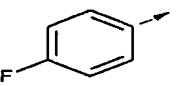
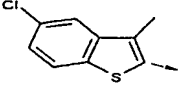
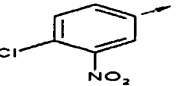
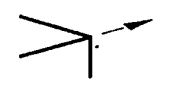
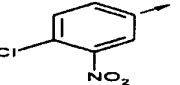
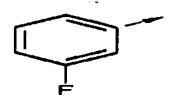
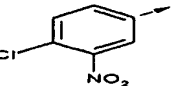
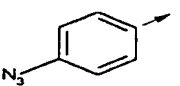
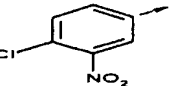
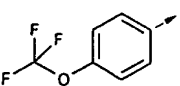
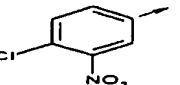
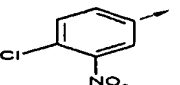
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|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 165 |  |  | 93 | 3,52 | 332,3 |
| 166 |  |  | 99 | 3,76 | 370,3 |
| 167 |  |  | 97 | 3,9 | 393,3 |
| 168 |  |  | 98 | 4,25 | 436,2 |
| 169 |  |  | 98 | 4,14 | 431,2 |
| 170 |  |  | 99 | 4,79 | 488,2 |
| 171 |  |  | 98 | 3,74 | 410,2 |
| 172 |  |  | 98 | 4,28 | 410,3 |
| 173 |  |  | 98 | 4,38 | 392,2 |
| 174 |  |  | 98 | 4,73 | 456,2 |
| 175 |  |  | 98 | 4,06 | 374,3 |

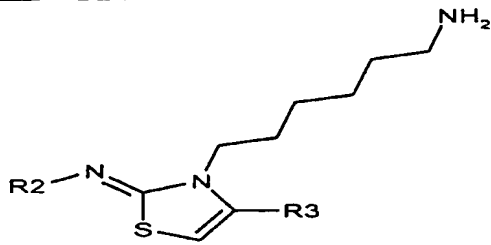
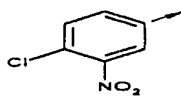
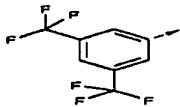
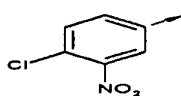
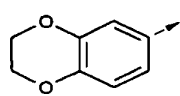
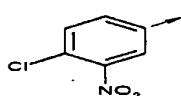
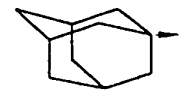
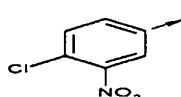
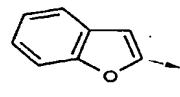
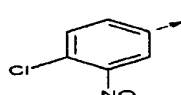
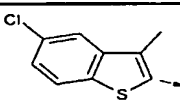
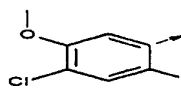
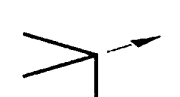
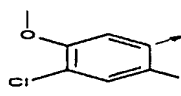
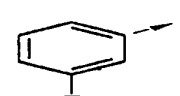
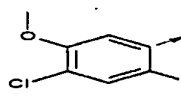
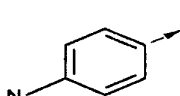
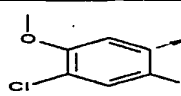
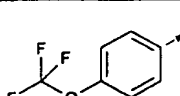
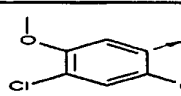
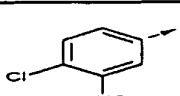
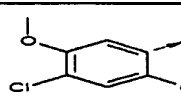
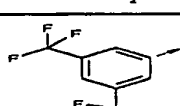
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|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 176 |  |  | 98 | 4,37 | 412,3 |
| 177 |  |  | 97 | 4,46 | 435,3 |
| 178 |  |  | 98 | 4,8 | 478,3 |
| 179 |  |  | 99 | 4,78 | 473,3 |
| 180 |  |  | 94 | 5,43 | 530,3 |
| 181 |  |  | 97 | 4,27 | 452,3 |
| 182 |  |  | 85 | 4,73 | 452,4 |
| 183 |  |  | 98 | 5,07 | 434,3 |
| 184 |  |  | 93 | 5,33 | 498,3 |
| 185 |  |  | 98 | 4,61 | 458,2 |
| 186 |  |  | 97 | 5,23 | 496,1 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 187 |  |  | 96 | 5,34 | 519,1 |
| 188 |  |  | 97 | 5,72 | 562,1 |
| 189 |  |  | 98 | 5,57 | 557,1 |
| 190 |  |  | 96 | 6,16 | 614,1 |
| 191 |  |  | 96 | 4,97 | 536,1 |
| 192 |  |  | 85 | 5,67 | 536,2 |
| 193 |  |  | 96 | 5,86 | 518,1 |
| 194 |  |  | 97 | 6,32 | 582,1 |
| 195 |  |  | 96 | 4,16 | 357,3 |
| 196 |  |  | 98 | 4,74 | 395,2 |
| 197 |  |  | 97 | 4,86 | 418,2 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 198 |  |  | 98 | 5,26 | 461,2 |
| 199 |  |  | 98 | 5,12 | 456,2 |
| 200 |  |  | 97 | 5,72 | 513,2 |
| 201 |  |  | 96 | 4,51 | 435,2 |
| 202 |  |  | 98 | 5,18 | 435,3 |
| 203 |  |  | 95 | 5,37 | 417,2 |
| 204 |  |  | 95 | 5,84 | 481,2 |
| 205 |  |  | 96 | 3,63 | 350,3 |
| 206 |  |  | 98 | 3,95 | 388,2 |
| 207 |  |  | 95 | 4,07 | 411,2 |
| 208 |  |  | 98 | 4,44 | 454,2 |

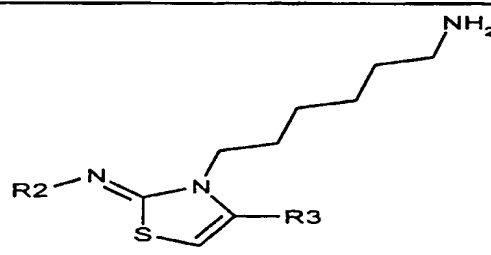
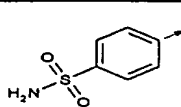
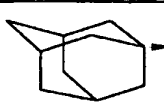
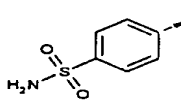
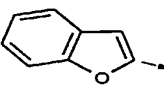
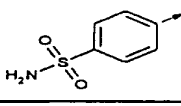
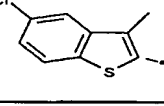
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 209 |  |  | 97 | 4,38 | 449,2 |
| 210 |  |  | 89 | 5,03 | 506,2 |
| 211 |  |  | 96 | 3,87 | 428,2 |
| 212 |  |  | 97 | 4,4 | 428,3 |
| 213 |  |  | 96 | 4,63 | 410,2 |
| 214 |  |  | 96 | 4,96 | 474,2 |
| 215 |  |  | 94 | 5,38 | 411,2 |
| 216 |  |  | 98 | 5,63 | 449,2 |
| 217 |  |  | 96 | 5,77 | 472,2 |
| 218 |  |  | 98 | 6,04 | 515,2 |
| 219 |  |  | 98 | 5,74 | 510,1 |

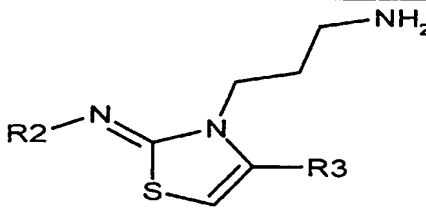
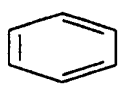

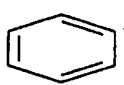
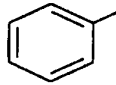
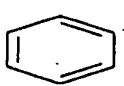
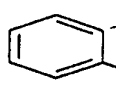
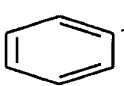
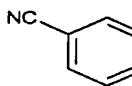
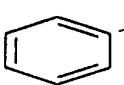
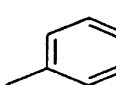
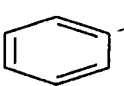
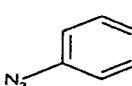
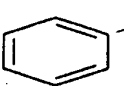
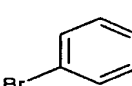
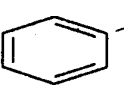
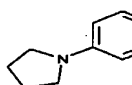
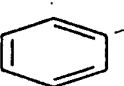
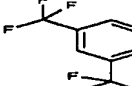
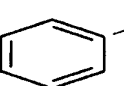
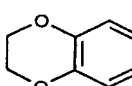
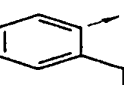

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 220 |  |  | 91 | 6,29 | 567,2 |
| 221 |  |  | 98 | 5,53 | 489,2 |
| 222 |  |  | 96 | 6,38 | 489,3 |
| 223 |  |  | 97 | 6,0 | 471,2 |
| 224 |  |  | 98 | 6,49 | 535,1 |
| 225 |  |  | 98 | 3,99 | 426,3 |
| 226 |  |  | 98 | 4,34 | 464,2 |
| 227 |  |  | 96 | 4,43 | 487,3 |
| 228 |  |  | 97 | 4,78 | 530,2 |
| 229 |  |  | 98 | 4,76 | 525,2 |
| 230 |  |  | 96 | 5,36 | 582,2 |

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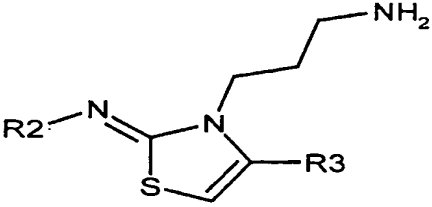
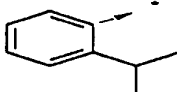
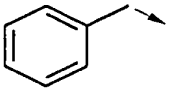
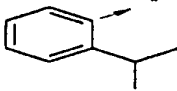
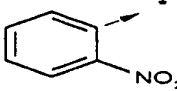
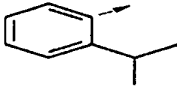
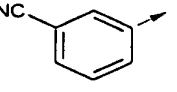
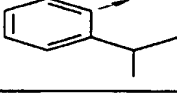
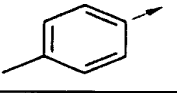
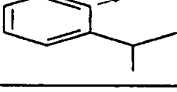
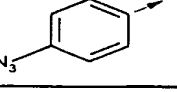
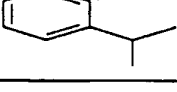
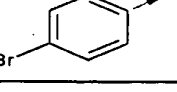
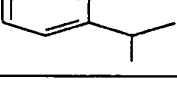
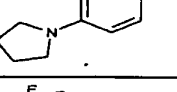
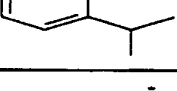
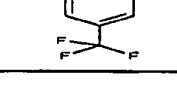
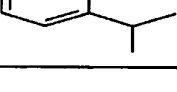
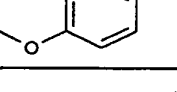
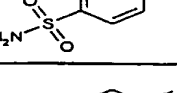
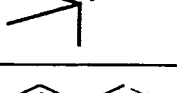
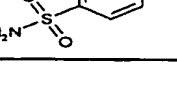
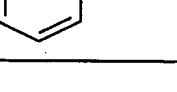
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
|-----|----|----|------------|-----------|--------------------|
| 231 | | | 95 | 4,23 | 504,3 |
| 232 | | | 97 | 4,7 | 504,3 |
| 233 | | | 98 | 4,99 | 486,2 |
| 234 | | | 97 | 5,3 | 550,2 |
| 235 | | | 96 | 3,44 | 411,2 |
| 236 | | | 95 | 3,94 | 449,2 |
| 237 | | | 96 | 4,11 | 472,3 |
| 238 | | | 95 | 4,52 | 515,2 |
| 239 | | | 95 | 4,39 | 510,2 |
| 240 | | | 94 | 5,01 | 567,2 |
| 241 | | | 96 | 3,74 | 489,2 |

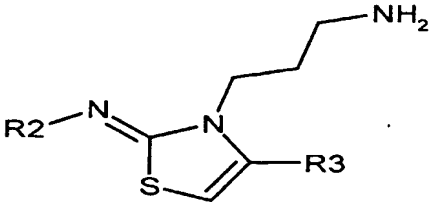
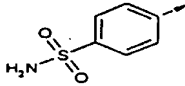
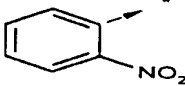
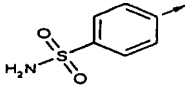
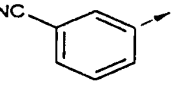
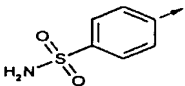
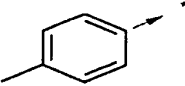
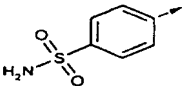
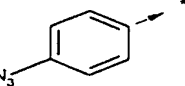
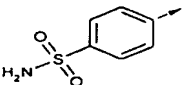
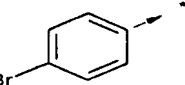
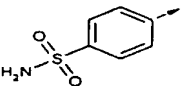
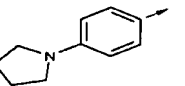
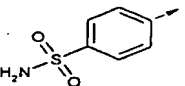
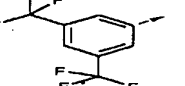
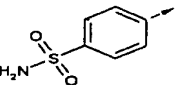
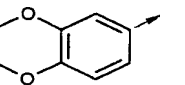
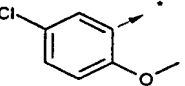

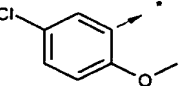
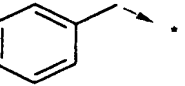
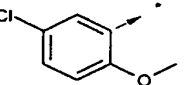
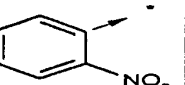
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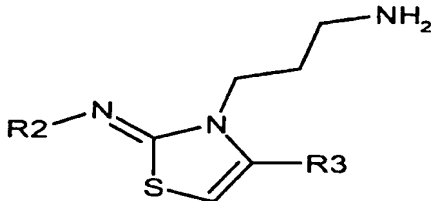
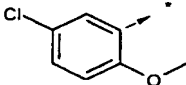
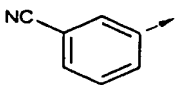
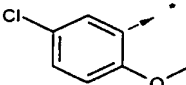
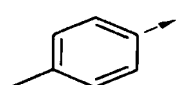
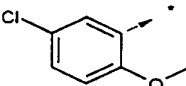
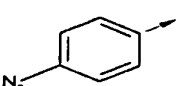
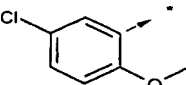
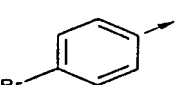
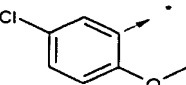
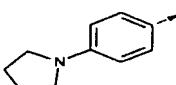
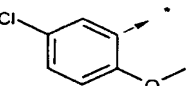
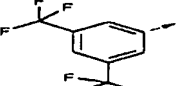
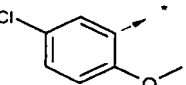
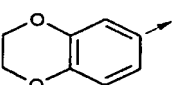
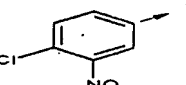

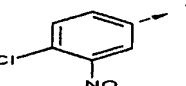
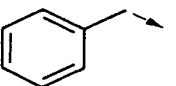
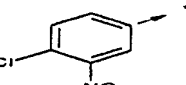
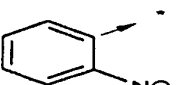
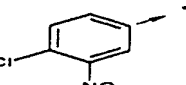
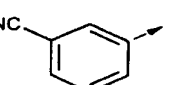
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 242 |  |  | 96 | 4,41 | 489,3 |
| 243 |  |  | 96 | 4,56 | 471,2 |
| 244 |  |  | 97 | 5,01 | 535,2 |

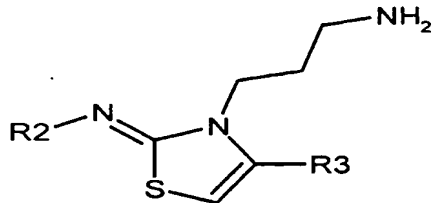
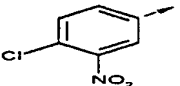
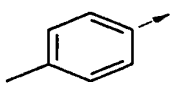
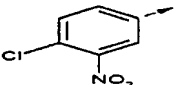
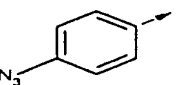
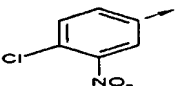
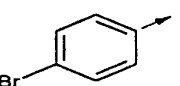
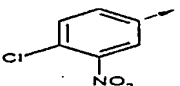
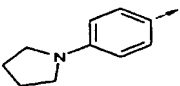
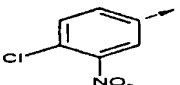
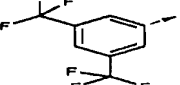
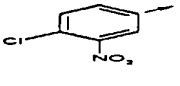
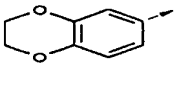
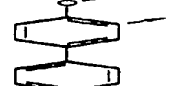


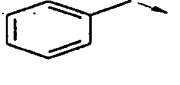
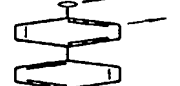
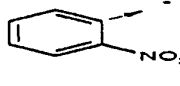
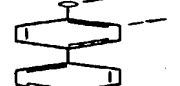
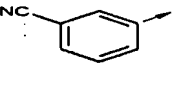
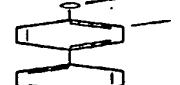
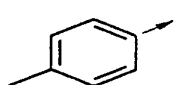
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 245 |  |  | 98,1 | 3,2 | 290,2 |
| 246 |  |  | 96,9 | 3,78 | 324,2 |
| 247 |  |  | 69,3 | 3,88 | 355,2 |
| 248 |  |  | 99,3 | 3,79 | 335,2 |
| 249 |  |  | 99,4 | 3,86 | 324,2 |
| 250 |  |  | 98 | 3,97 | 351,2 |
| 251 |  |  | 98,7 | 4,14 | 388,1 |
| 252 |  |  | 93,5 | 4,24 | 379,3 |
| 253 |  |  | 82,4 | 5,16 | 446,2 |
| 254 |  |  | 98,8 | 3,7 | 368,2 |
| 255 |  |  | 98,5 | 3,9 | 332,3 |

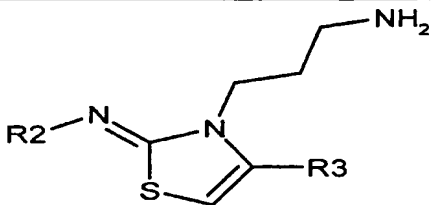

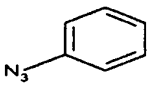

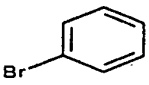

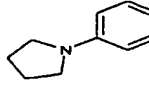
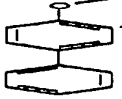
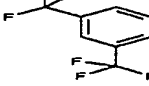
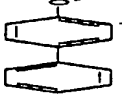
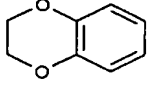
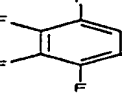
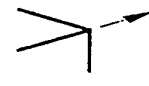
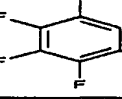
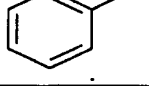
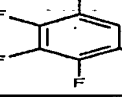
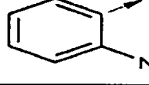
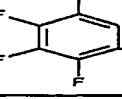
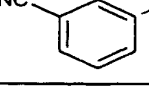
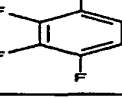
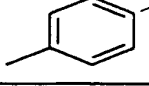
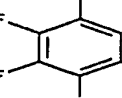
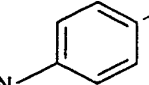
- 121 -

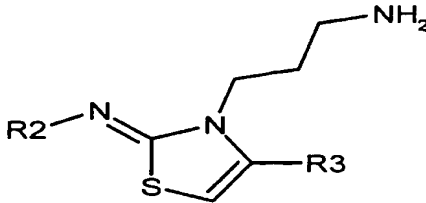
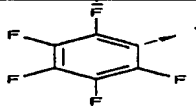
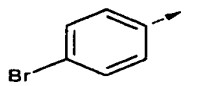
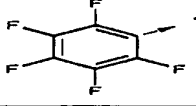
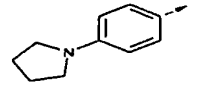
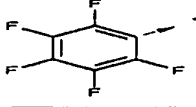
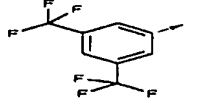
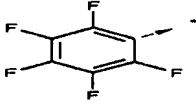
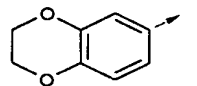
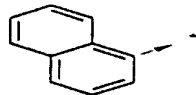

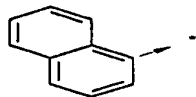
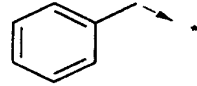
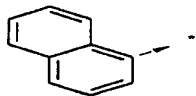
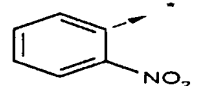
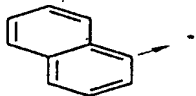
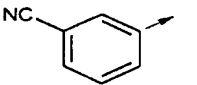
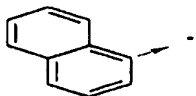
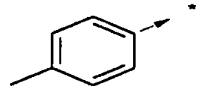
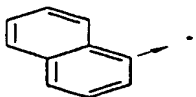
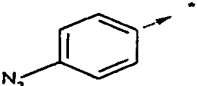
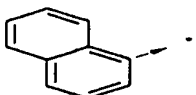
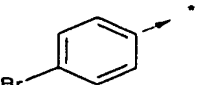
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 256 |  |  | 92,3 | 4,4 | 366,3 |
| 257 |  |  | 82,3 | 4,55 | 397,2 |
| 258 |  |  | 98,4 | 4,48 | 377,3 |
| 259 |  |  | 97,3 | 4,49 | 366,3 |
| 260 |  |  | 95,4 | 4,59 | 393,3 |
| 261 |  |  | 98,7 | 4,77 | 430,2 |
| 262 |  |  | 90,9 | 4,76 | 421,3 |
| 263 |  |  | 98,7 | 5,72 | 488,2 |
| 264 |  |  | 97,7 | 4,33 | 410,3 |
| 265 |  |  | 98,5 | 3,42 | 369,2 |
| 266 |  |  | 94,9 | 3,91 | 403,2 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 267 |  |  | 98,1 | 3,81 | 434,2 |
| 268 |  |  | 97,9 | 3,78 | 414,1 |
| 269 |  |  | 98,1 | 4,06 | 403,2 |
| 270 |  |  | 96,2 | 4,14 | 430,2 |
| 271 |  |  | 98,3 | 4,28 | 467,1 |
| 272 |  |  | 96,8 | 4,5 | 458,2 |
| 273 |  |  | 98,3 | 4,92 | 525,2 |
| 274 |  |  | 97,1 | 3,84 | 447,2 |
| 275 |  |  | 96,5 | 4,28 | 354,2 |
| 276 |  |  | 93,3 | 5,02 | 388,2 |
| 277 |  |  | 68,7 | 4,96 | 419,2 |

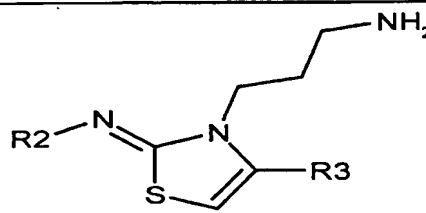
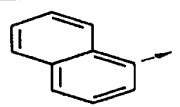
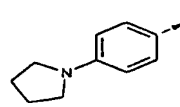
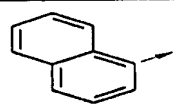
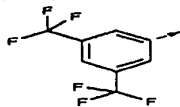
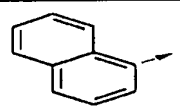
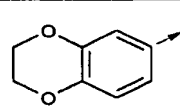
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|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 278 |  |  | 97,8 | 4,86 | 399,2 |
| 279 |  |  | 96 | 5,13 | 388,2 |
| 280 |  |  | 96,9 | 5,18 | 415,2 |
| 281 |  |  | 98,6 | 5,31 | 452,1 |
| 282 |  |  | 89,5 | 5,54 | 443,2 |
| 283 |  |  | 65,5 | 5,89 | 510,2 |
| 284 |  |  | 97,8 | 4,89 | 432,2 |
| 285 |  |  | 93,2 | 5,08 | 369,2 |
| 286 |  |  | 94,6 | 5,31 | 403,1 |
| 287 |  |  | 97,6 | 5,07 | 434,1 |
| 288 |  |  | 99,1 | 5,05 | 414,1 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 289 |  |  | 99,1 | 5,39 | 403,1 |
| 290 |  |  | 98,3 | 5,44 | 430,2 |
| 291 |  |  | 99,4 | 5,47 | 467,1 |
| 292 |  |  | 97,4 | 5,86 | 458,2 |
| 293 |  |  | 99,5 | 5,87 | 525,1 |
| 294 |  |  | 98,5 | 5,21 | 447,2 |
| 295 |  |  | 95,7 | 4,41 | 396,3 |
| 296 |  |  | 92,9 | 5,06 | 430,3 |
| 297 |  |  | 54 | 5,19 | 461,2 |
| 298 |  |  | 91,8 | 5,07 | 441,2 |
| 299 |  |  | 95,8 | 5,18 | 430,3 |

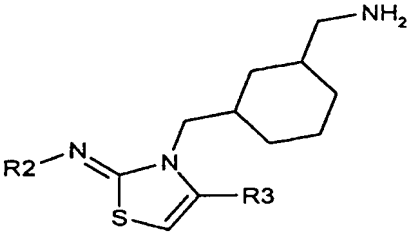
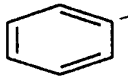

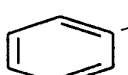
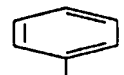
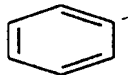
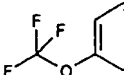
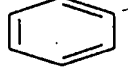
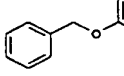
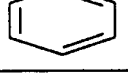
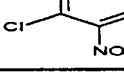
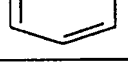
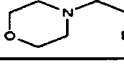
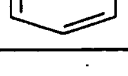
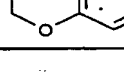
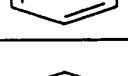
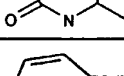
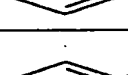
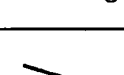
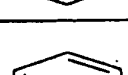
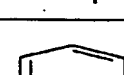
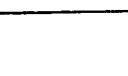
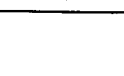
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 300 |  |  | 96 | 5,28 | 457,3 |
| 301 |  |  | 96,9 | 5,45 | 494,2 |
| 302 |  |  | 87 | 5,49 | 485,3 |
| 303 |  |  | 35,6 | 6,18 | 552,2 |
| 304 |  |  | 96,7 | 4,97 | 474,3 |
| 305 |  |  | 83,9 | 5,24 | 380,2 |
| 306 |  |  | 92,8 | 5,39 | 414,2 |
| 307 |  |  | 92 | 5,14 | 445,2 |
| 308 |  |  | 97,4 | 5,11 | 425,1 |
| 309 |  |  | 98,1 | 5,47 | 414,2 |
| 310 |  |  | 97,2 | 5,47 | 441,1 |

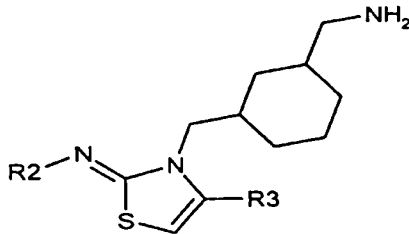
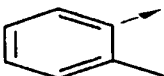
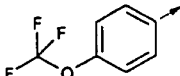
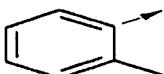
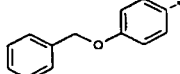
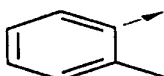
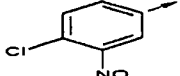
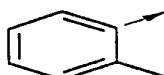
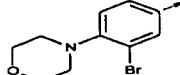
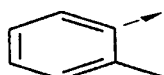
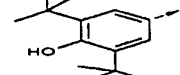
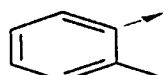
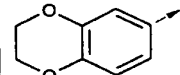
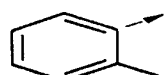
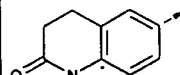
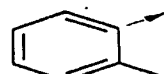
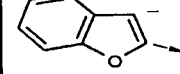
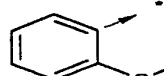
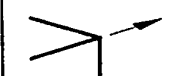
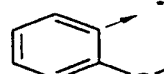
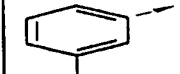
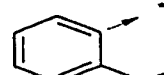
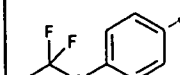
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 311 |  |  | 97 | 5,52 | 478,1 |
| 312 |  |  | 93,3 | 5,99 | 469,2 |
| 313 |  |  | 98,3 | 5,91 | 536,1 |
| 314 |  |  | 96,5 | 5,31 | 458,2 |
| 315 |  |  | 98,7 | 4,12 | 340,3 |
| 316 |  |  | 93,4 | 4,66 | 374,2 |
| 317 |  |  | 98,9 | 4,78 | 405,2 |
| 318 |  |  | 97,8 | 4,71 | 385,2 |
| 319 |  |  | 98,1 | 4,78 | 374,2 |
| 320 |  |  | 97,2 | 4,9 | 401,2 |
| 321 |  |  | 98,8 | 5,09 | 438,1 |

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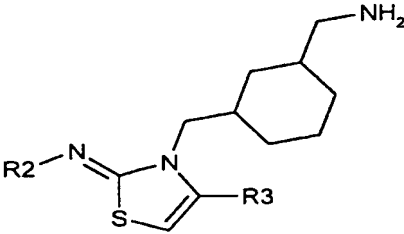
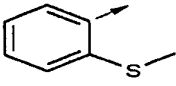
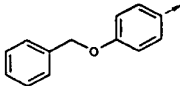
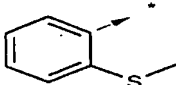
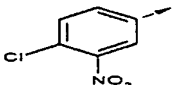
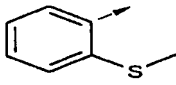
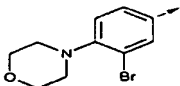
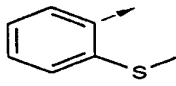
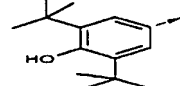
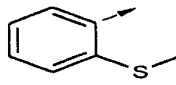
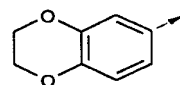
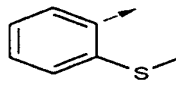
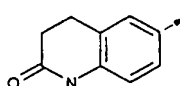
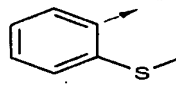
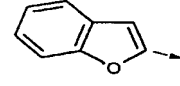
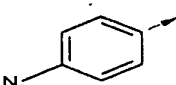

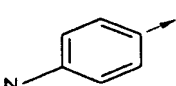
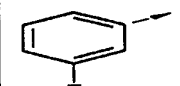
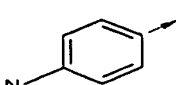
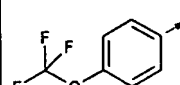
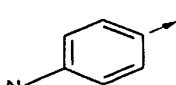
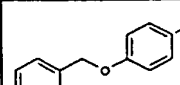
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 322 |  |  | 95,8 | 5,07 | 429,3 |
| 323 |  |  | 98,5 | 5,82 | 496,2 |
| 324 |  |  | 97,5 | 4,59 | 418,2 |

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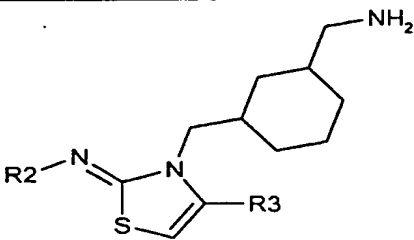
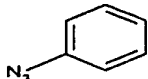
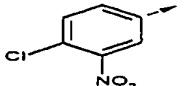
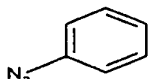
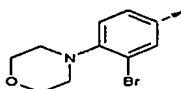
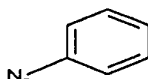
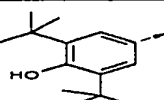
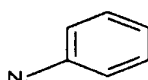
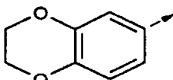
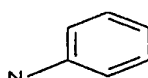
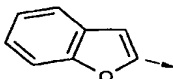
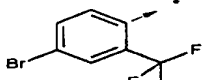
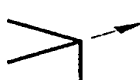
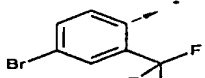
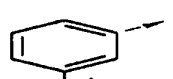
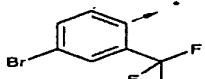
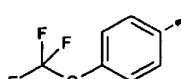
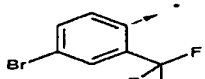
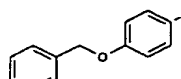
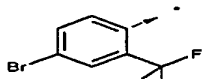
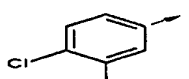
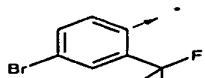
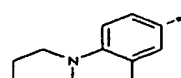
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|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 325 |  |  | 93 | 3,71 | 358,2 |
| 326 |  |  | 68 + 30 | 4,0 + 4,1 | 396,2 |
| 327 |  |  | 69 + 31 | 4,5 + 4,6 | 462,2 |
| 328 |  |  | 66 + 27 | 4,7 + 4,8 | 484,3 |
| 329 |  |  | 67 + 31 | 4,4 + 4,6 | 457,2 |
| 330 |  |  | 67 + 30 | 4,3 + 4,5 | 541,2 |
| 331 |  |  | 62 + 33 | 3,9 + 4,0 | 436,2 |
| 332 |  |  | 64 + 30 | 3,5 + 3,6 | 447,3 |
| 333 |  |  | 65 + 30 | 4,7 + 4,9 | 418,2 |
| 334 |  |  | 68 + 29 | 3,8 + 3,9 | 372,3 |
| 335 |  |  | 69 + 29 | 4,2 + 4,3 | 410,2 |

|  | | | | | |
|---|---|---|------------|-------------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 336 |  |  | 68 + 30 | 4,6 + 4,8 | 476,2 |
| 337 |  |  | 61 + 32 | 4,8 + 4,89 | 498,3 |
| 338 |  |  | 66 + 30 | 4,55 + 4,71 | 471,2 |
| 339 |  |  | 68 + 29 | 4,46 + 4,58 | 555,2 |
| 340 |  |  | 22 + 11 | 5,13 + 5,22 | 520,4 |
| 341 |  |  | 67 + 24 | 4,09 + 4,14 | 450,3 |
| 342 |  |  | 71 + 23 | 3,7 + 3,74 | 461,3 |
| 343 |  |  | 67 + 31 | 4,82 + 5,02 | 432,2 |
| 344 |  |  | 66 + 31 | 4,14 + 4,39 | 404,3 |
| 345 |  |  | 65 + 31 | 4,74 + 4,94 | 442,2 |
| 346 |  |  | 65 + 31 | 5,25 + 5,47 | 508,2 |

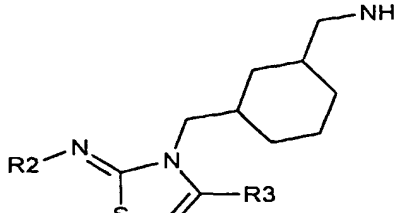
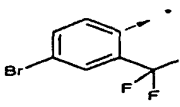
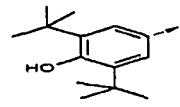
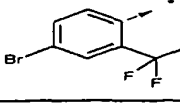
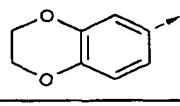
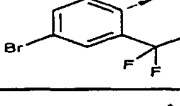
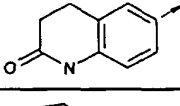
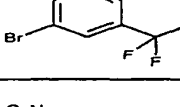
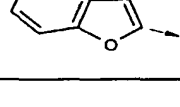
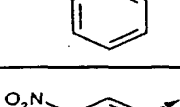

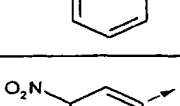
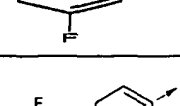
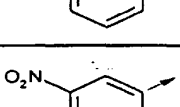
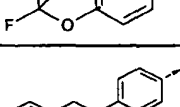
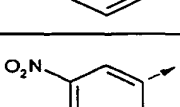
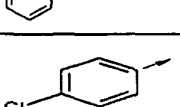
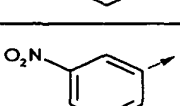
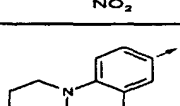
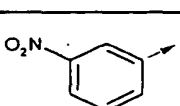
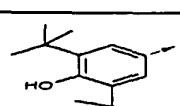

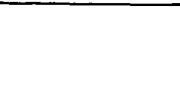
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|  | | | | | |
|---|---|---|------------|-------------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 347 |  |  | 62 + 29 | 5,28 + 5,5 | 530,3 |
| 348 |  |  | 65 + 30 | 5,21 + 5,38 | 503,2 |
| 349 |  |  | 63 + 30 | 5,03 + 5,24 | 587,2 |
| 350 |  |  | 64 + 30 | 5,59 + 5,84 | 552,3 |
| 351 |  |  | 58 + 28 | 4,49 + 4,66 | 482,3 |
| 352 |  |  | 64 + 26 | 4,01 + 4,11 | 493,3 |
| 353 |  |  | 65 + 31 | 5,54 + 5,71 | 464,2 |
| 354 |  |  | 57 + 24 | 4,08 + 4,19 | 399,3 |
| 355 |  |  | 62 + 28 | 4,52 + 4,7 | 437,2 |
| 356 |  |  | 62 + 28 | 5 + 5,2 | 503,2 |
| 357 |  |  | 58 + 26 | 5,08 + 5,25 | 525,3 |

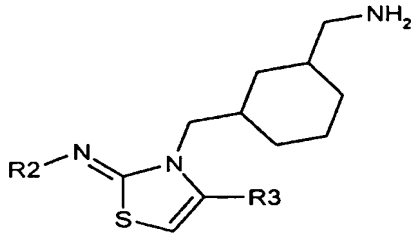
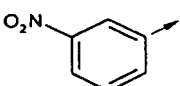
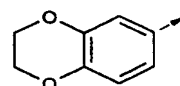
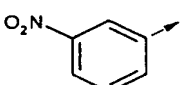
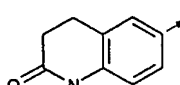
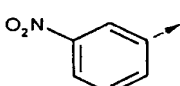
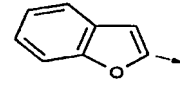
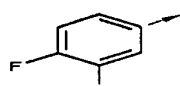
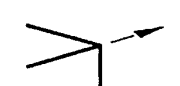
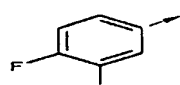

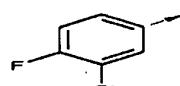
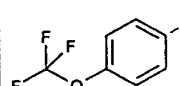
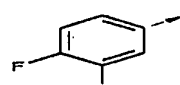
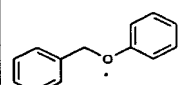
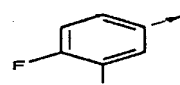
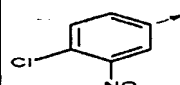
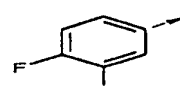
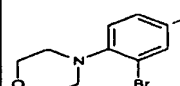
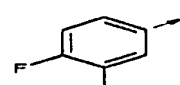
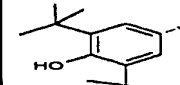
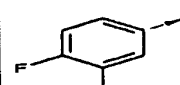
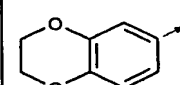
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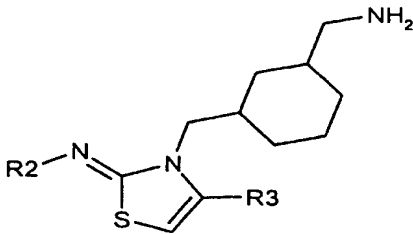
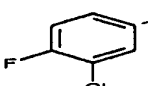
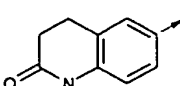
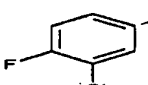
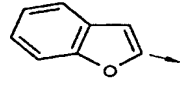

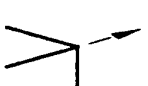

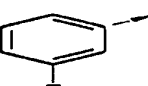
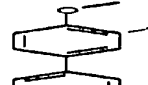
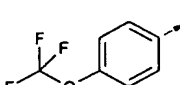

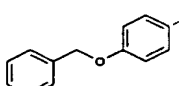

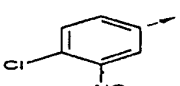

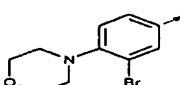
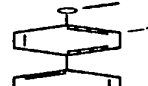
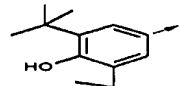
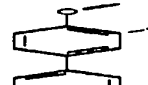
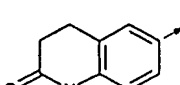
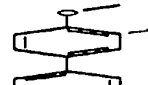
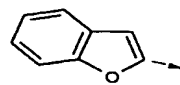
|  | | | | | |
|---|---|---|------------|-------------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 358 |  |  | 62 + 29 | 4,98 + 5,19 | 498,2 |
| 359 |  |  | 62 + 29 | 4,82 + 4,99 | 582,2 |
| 360 |  |  | 62 + 28 | 5,39 + 5,58 | 547,3 |
| 361 |  |  | 56 + 26 | 4,37 + 4,49 | 477,3 |
| 362 |  |  | 64 + 32 | 5,32 + 5,55 | 459,2 |
| 363 |  |  | 94 | 6,36 | 505,2 |
| 364 |  |  | 98 | 6,39 | 542,1 |
| 365 |  |  | 25 + 72 | 6,74 + 6,77 | 608,1 |
| 366 |  |  | 92 | 7,07 | 630,2 |
| 367 |  |  | 23 + 73 | 6,38 + 6,42 | 603,1 |
| 368 |  |  | 26 + 69 | 6,73 + 6,76 | 687,1 |

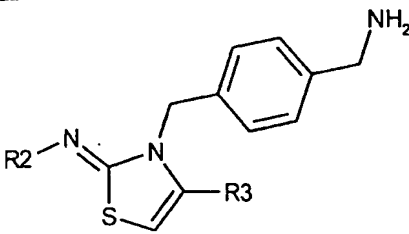
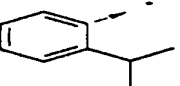
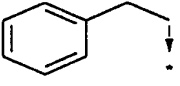
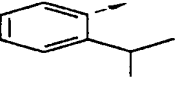
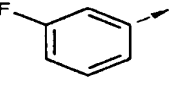
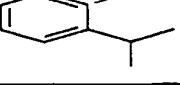
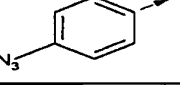
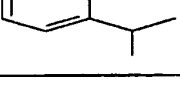
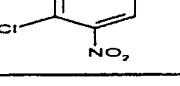
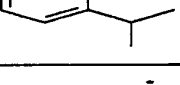
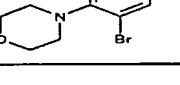

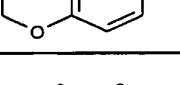
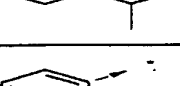
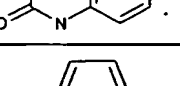
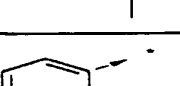
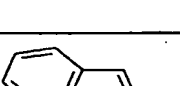
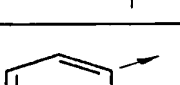
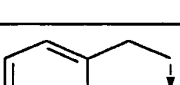
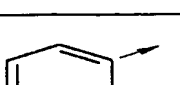


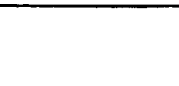
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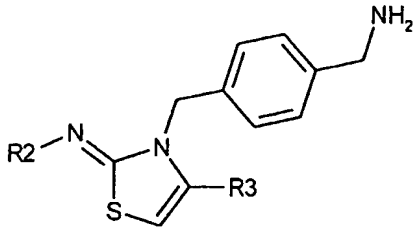
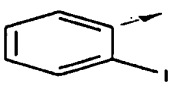
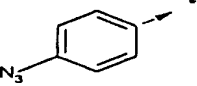
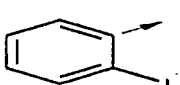
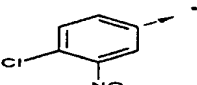
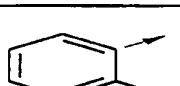
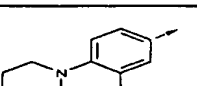
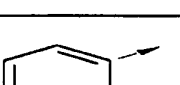
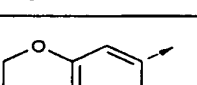
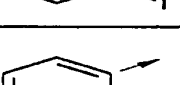
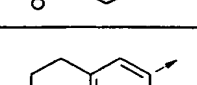
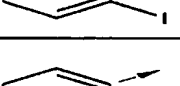
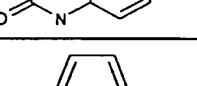
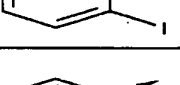
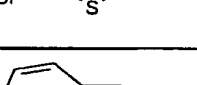
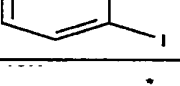
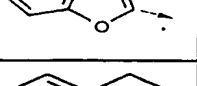
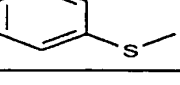
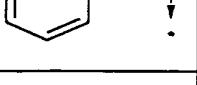
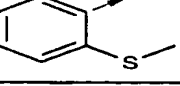
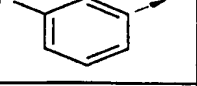
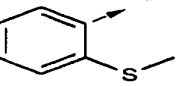
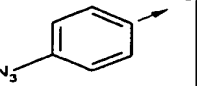
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|---|---|---|------------|-------------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 369 |  |  | 60 | 7,55 | 652,3 |
| 370 |  |  | 82 | 6,39 | 582,1 |
| 371 |  |  | 94 | 5,74 | 593,2 |
| 372 |  |  | 22 + 73 | 6,68 + 6,74 | 564,1 |
| 373 |  |  | 59 + 27 | 4,88 + 5,13 | 403,3 |
| 374 |  |  | 67 + 30 | 5,35 + 5,44 | 441,2 |
| 375 |  |  | 64 + 34 | 5,84 + 5,92 | 507,2 |
| 376 |  |  | 62 + 28 | 6 + 6,13 | 529,3 |
| 377 |  |  | 97 | 5,58 | 502,2 |
| 378 |  |  | 65 + 32 | 5,71 + 5,8 | 586,2 |
| 379 |  |  | 49 + 23 | 6,45 + 6,58 | 551,3 |

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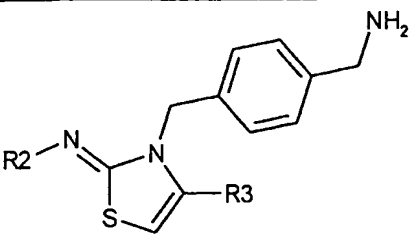
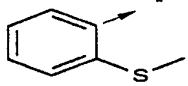
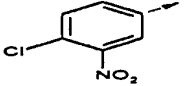
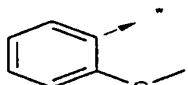
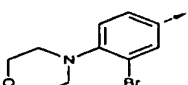
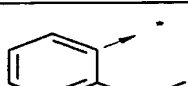
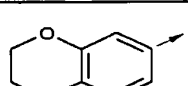
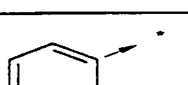
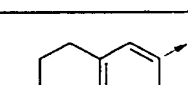
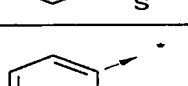
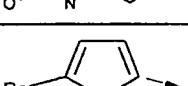
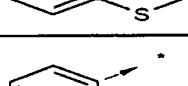
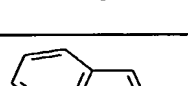
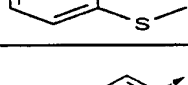
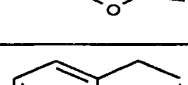
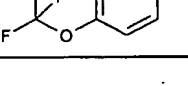
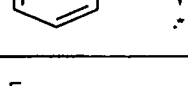
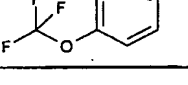
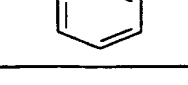
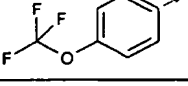
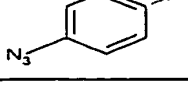
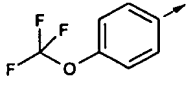
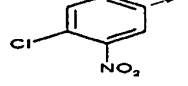
|  | | | | | |
|---|---|---|------------|-------------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 380 |  |  | 61 + 26 | 5,18 + 5,3 | 481,2 |
| 381 |  |  | 45 + 21 | 4,57 + 4,68 | 492,3 |
| 382 |  |  | 84 | 5,9 | 463,2 |
| 383 |  |  | 56 + 26 | 4,65 + 4,89 | 410,2 |
| 384 |  |  | 64 + 30 | 5,29 + 5,47 | 448,2 |
| 385 |  |  | 65 + 30 | 5,78 + 5,95 | 514,2 |
| 386 |  |  | 63 + 27 | 5,8 + 6,02 | 536,2 |
| 387 |  |  | 65 + 31 | 5,71 + 5,81 | 509,1 |
| 388 |  |  | 62 + 32 | 5,59 + 5,79 | 593,1 |
| 389 |  |  | 30 + 14 | 6,22 + 6,45 | 558,3 |
| 390 |  |  | 57 + 26 | 5,01 + 5,2 | 488,2 |

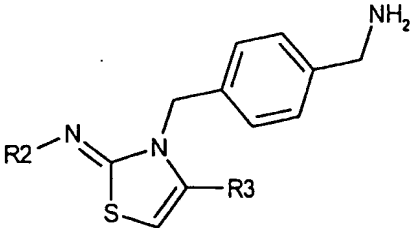
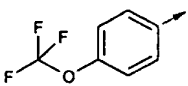
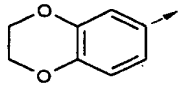
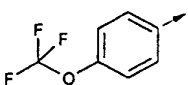
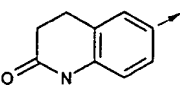
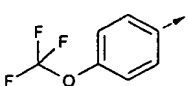
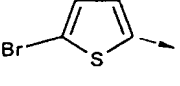
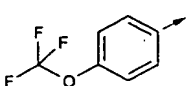
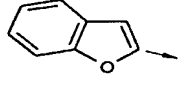
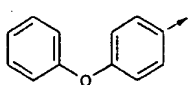
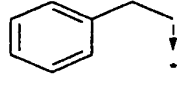
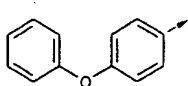
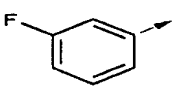
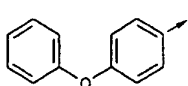
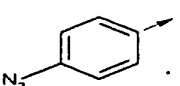
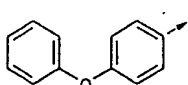
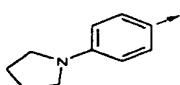
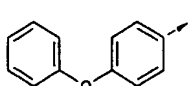
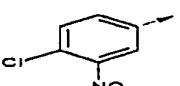
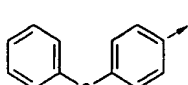
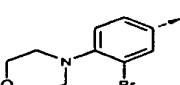
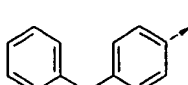
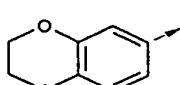
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|---|---|---|------------|-------------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 391 |  |  | 54 + 26 | 4,46 + 4,61 | 499,2 |
| 392 |  |  | 27 + 11 | 6,09 + 6,18 | 470,2 |
| 393 |  |  | 63 + 29 | 4,53 + 4,6 | 464,3 |
| 394 |  |  | 65 + 30 | 4,78 + 4,93 | 502,3 |
| 395 |  |  | 61 + 28 | 5,16 + 5,35 | 568,2 |
| 396 |  |  | 59 + 25 | 5,3 + 5,42 | 590,3 |
| 397 |  |  | 60 + 30 | 5,12 + 5,34 | 563,2 |
| 398 |  |  | 63 + 32 | 5,01 + 5,17 | 647,2 |
| 399 |  |  | 59 + 26 | 5,55 + 5,7 | 612,4 |
| 400 |  |  | 52 + 14 | 4,35 + 4,4 | 553,3 |
| 401 |  |  | 61 + 29 | 5,36 + 5,64 | 524,3 |

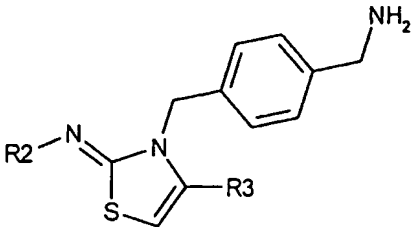
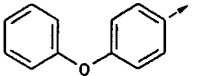
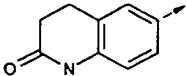
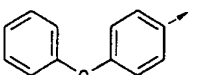
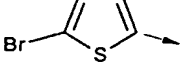
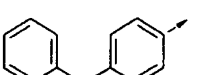
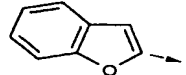
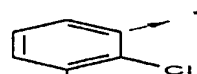
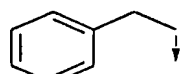
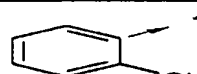
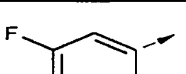
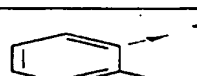
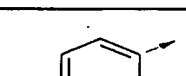
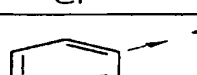
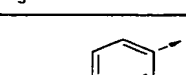
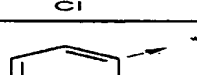
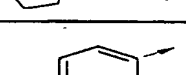
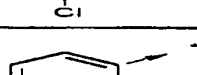
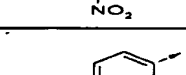
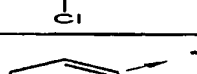
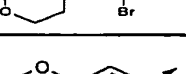
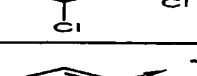
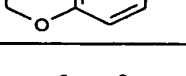
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 402 |  |  | 88,5 | 4,52 | 442,1 |
| 403 |  |  | 94,6 | 4,72 | 432,15 |
| 404 |  |  | 95 | 4,78 | 455,16 |
| 405 |  |  | 98,6 | 5,19 | 493,12 |
| 406 |  |  | 95,8 | 4,99 | 577,11 |
| 407 |  |  | 95,1 | 4,44 | 472,19 |
| 408 |  |  | 96,3 | 4,0 | 483,21 |
| 409 |  |  | 94,5 | 5,35 | 498,04 |
| 410 |  |  | 94,1 | 5,61 | 454,15 |
| 411 |  |  | 83 | 5,43 | 526,03 |
| 412 |  |  | 94,9 | 5,4 | 515,97 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 413 |  |  | 93,4 | 5,52 | 539,00 |
| 414 |  |  | 97,1 | 5,48 | 576,95 |
| 415 |  |  | 92,7 | 5,69 | 660,99 |
| 416 |  |  | 92,2 | 5,27 | 555,98 |
| 417 |  |  | 92 | 4,7 | 567,00 |
| 418 |  |  | 89,7 | 5,73 | 581,87 |
| 419 |  |  | 87,8 | 5,77 | 538,00 |
| 420 |  |  | 84,4 | 4,74 | 446,14 |
| 421 |  |  | 92,6 | 4,9 | 436,08 |
| 422 |  |  | 91,2 | 5,0 | 459,10 |
| 423 |  |  | 72,4 | 5,0 | 487,16 |

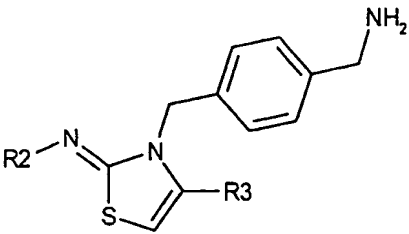
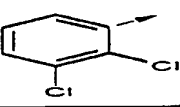
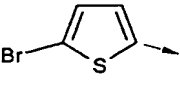
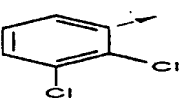
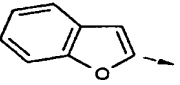
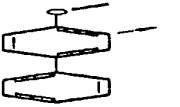
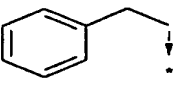
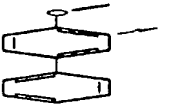
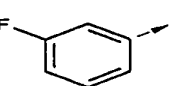
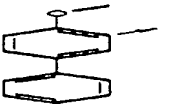
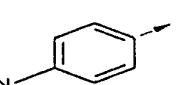
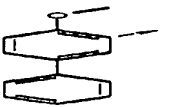
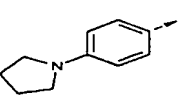
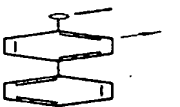
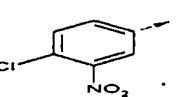
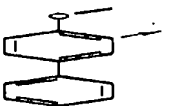
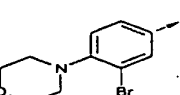

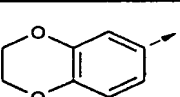
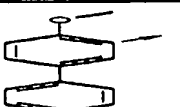
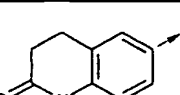
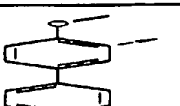
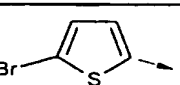
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|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 424 |  |  | 94,9 | 5,19 | 497,07 |
| 425 |  |  | 91,7 | 5,18 | 581,05 |
| 426 |  |  | 91,5 | 4,67 | 476,12 |
| 427 |  |  | 89,6 | 4,16 | 487,13 |
| 428 |  |  | 91,7 | 5,38 | 501,96 |
| 429 |  |  | 89,9 | 5,48 | 458,10 |
| 430 |  |  | 87,1 | 5,26 | 484,14 |
| 431 |  |  | 95,7 | 5,41 | 474,10 |
| 432 |  |  | 94,6 | 5,51 | 497,12 |
| 433 |  |  | 97,4 | 5,64 | 535,01 |
| 434 |  |  | 96,2 | 5,69 | 619,04 |

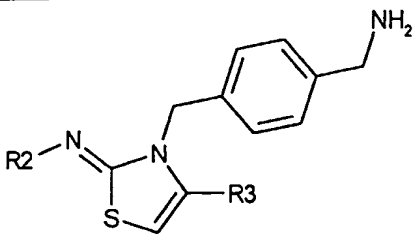
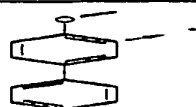
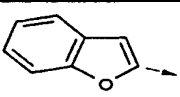
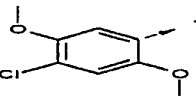
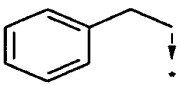
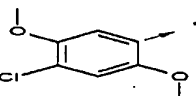
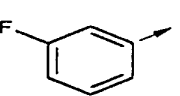
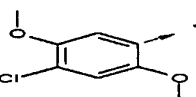
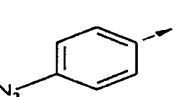
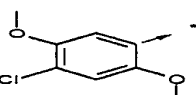
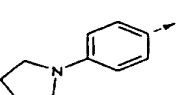
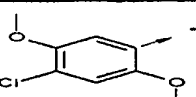
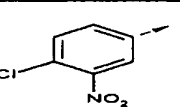
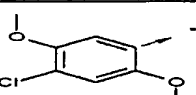
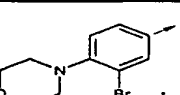
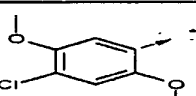
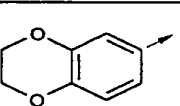
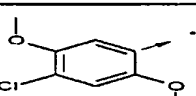
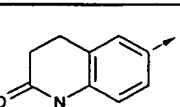
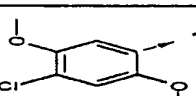
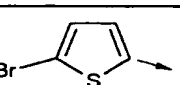
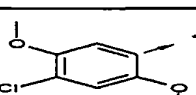
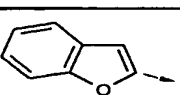
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 435 |  |  | 94,4 | 5,21 | 514,10 |
| 436 |  |  | 94,7 | 4,67 | 525,11 |
| 437 |  |  | 92,7 | 5,84 | 539,94 |
| 438 |  |  | 91 | 5,93 | 496,09 |
| 439 |  |  | 82,4 | 4,82 | 492,18 |
| 440 |  |  | 92,2 | 5,03 | 482,14 |
| 441 |  |  | 90,4 | 5,08 | 505,15 |
| 442 |  |  | 33,4 | 5,14 | 533,18 |
| 443 |  |  | 97,6 | 5,45 | 543,07 |
| 444 |  |  | 93,9 | 5,26 | 627,10 |
| 445 |  |  | 93,6 | 4,78 | 522,14 |

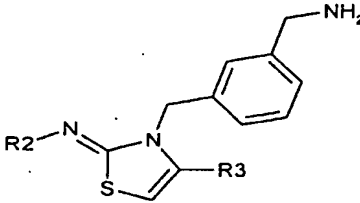
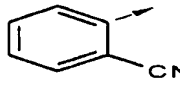
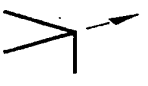
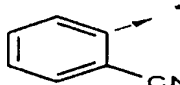
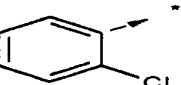
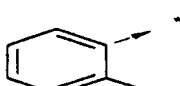
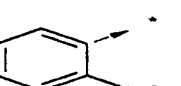
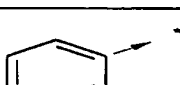
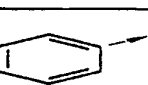
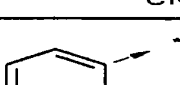
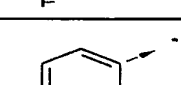
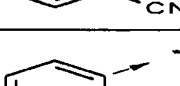
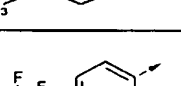
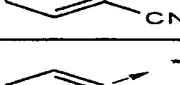
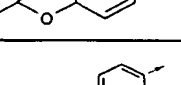
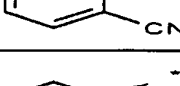
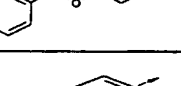
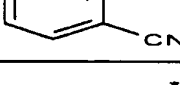
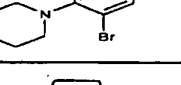
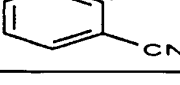
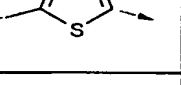
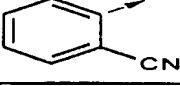
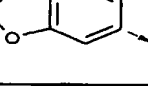
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 446 |  |  | 94 | 4,34 | 533,15 |
| 447 |  |  | 91,6 | 5,6 | 547,98 |
| 448 |  |  | 92,6 | 5,82 | 504,14 |
| 449 |  |  | 84,9 | 5,76 | 468,08 |
| 450 |  |  | 95,4 | 5,54 | 458,03 |
| 451 |  |  | 93,3 | 5,74 | 481,03 |
| 452 |  |  | 85,3 | 6,21 | 509,06 |
| 453 |  |  | 97,4 | 5,62 | 518,97 |
| 454 |  |  | 92 | 5,91 | 602,90 |
| 455 |  |  | 91,4 | 5,54 | 498,06 |
| 456 |  |  | 91,4 | 4,98 | 509,06 |

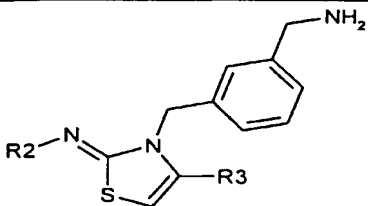
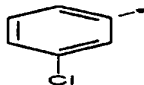
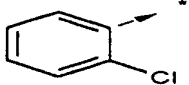

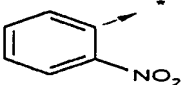
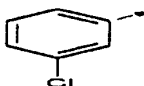
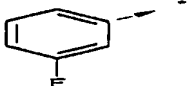
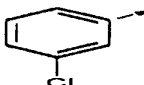
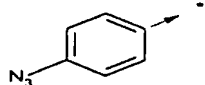
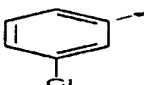
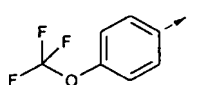
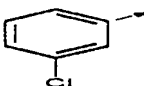
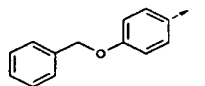
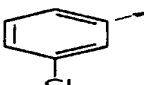
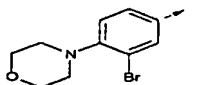
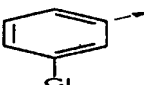
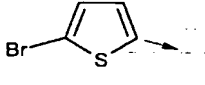
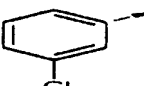
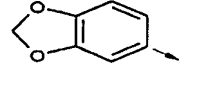
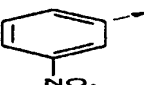

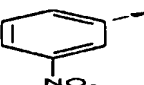
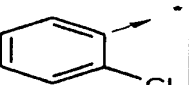
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|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 457 |  |  | 88,7 | 5,9 | 523,88 |
| 458 |  |  | 88,5 | 5,88 | 480,05 |
| 459 |  |  | 88,2 | 4,69 | 506,18 |
| 460 |  |  | 93,1 | 4,87 | 496,15 |
| 461 |  |  | 91,2 | 4,92 | 519,15 |
| 462 |  |  | 26,9 | 5,01 | 547,17 |
| 463 |  |  | 93,9 | 5,26 | 557,08 |
| 464 |  |  | 93,2 | 5,08 | 641,13 |
| 465 |  |  | 95,7 | 4,64 | 536,15 |
| 466 |  |  | 95,3 | 4,24 | 547,15 |
| 467 |  |  | 92,3 | 5,39 | 562,00 |

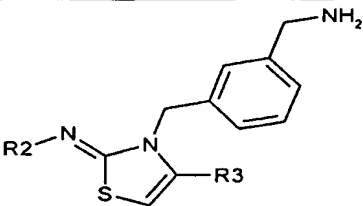
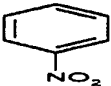
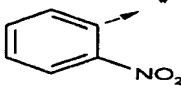
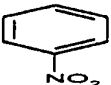
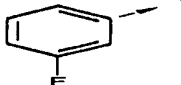
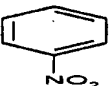
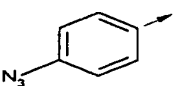
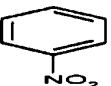
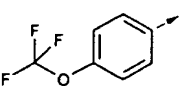
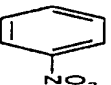
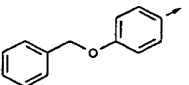
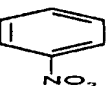
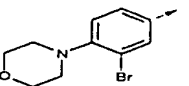
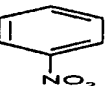
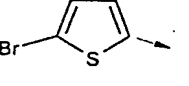
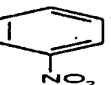
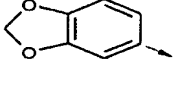
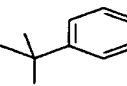

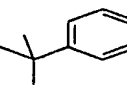
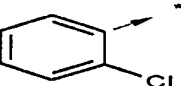
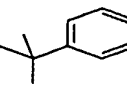
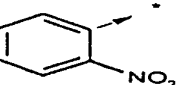
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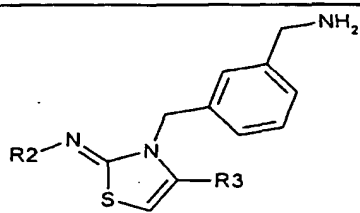
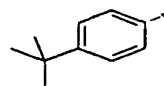
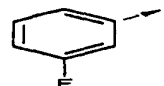
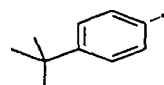
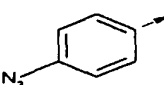
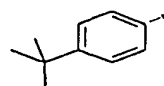
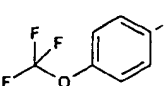
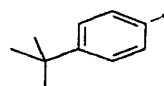
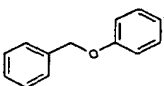
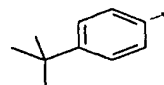
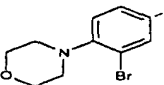
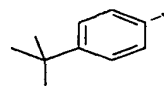
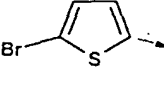
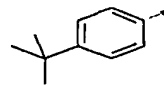
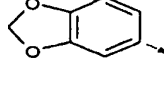
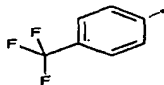
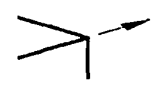
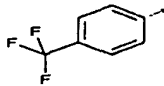
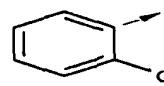
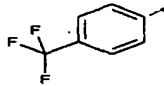
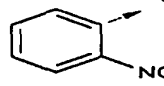
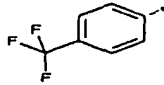
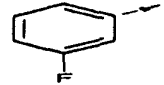
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 468 |  |  | 92 | 5,6 | 518,14 |
| 469 |  |  | 75,3 | 4,59 | 494,13 |
| 470 |  |  | 97,1 | 4,73 | 484,11 |
| 471 |  |  | 95,4 | 4,81 | 507,11 |
| 472 |  |  | 10,7 | 4,9 | 535,14 |
| 473 |  |  | 96,4 | 5,07 | 545,02 |
| 474 |  |  | 96,5 | 4,98 | 629,05 |
| 475 |  |  | 95,2 | 4,5 | 524,08 |
| 476 |  |  | 96 | 4,06 | 535,09 |
| 477 |  |  | 95,3 | 5,22 | 549,95 |
| 478 |  |  | 94,1 | 5,36 | 506,08 |

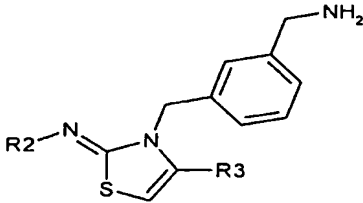
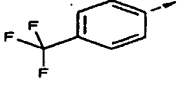
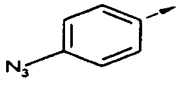
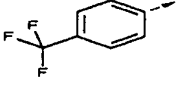
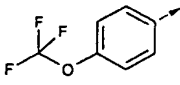
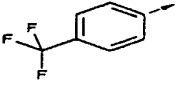
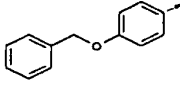
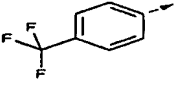
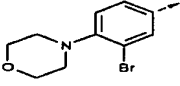
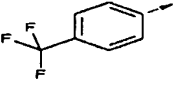
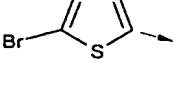
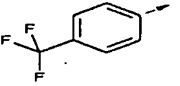
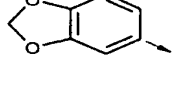
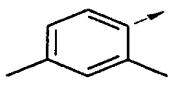
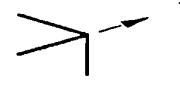
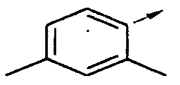
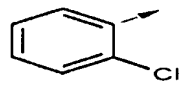
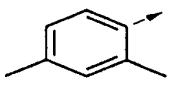
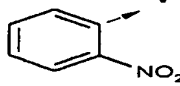
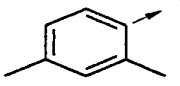
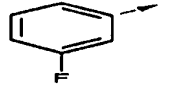
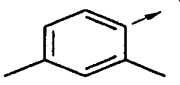
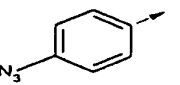
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 479 |  |  | 45,6 | 4,95 | 377,14 |
| 480 |  |  | 79 | 5,17 | 431,07 |
| 481 |  |  | 56,8 | 4,84 | 442,08 |
| 482 |  |  | 79,2 | 5,04 | 415,07 |
| 483 |  |  | 78,4 | 5,25 | 438,11 |
| 484 |  |  | 82,6 | 5,47 | 481,10 |
| 485 |  |  | 72,6 | 5,81 | 503,17 |
| 486 |  |  | 79 | 5,36 | 560,04 |
| 487 |  |  | 72,1 | 5,34 | 480,98 |
| 488 |  |  | 76,9 | 5,0 | 441,09 |
| 489 |  |  | 94,5 | 4,6 | 386,09 |

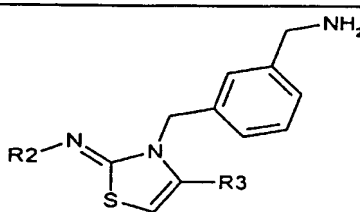
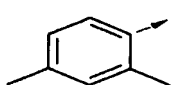
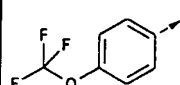
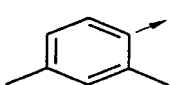
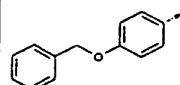
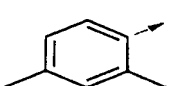
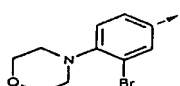
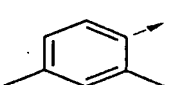
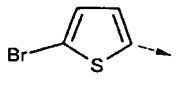
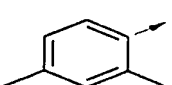
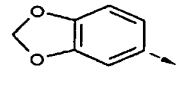
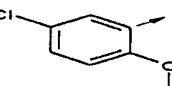

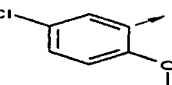
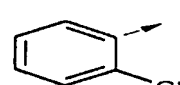
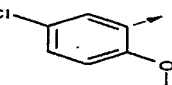
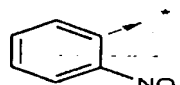
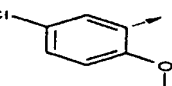
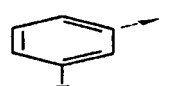
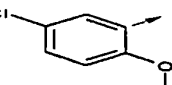
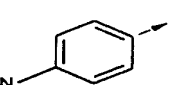
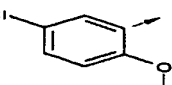
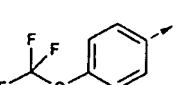
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 490 |  |  | 95,4 | 5,34 | 440,04 |
| 491 |  |  | 95,3 | 5,05 | 451,06 |
| 492 |  |  | 95,2 | 5,23 | 424,07 |
| 493 |  |  | 93,4 | 5,35 | 447,07 |
| 494 |  |  | 96,1 | 5,67 | 490,07 |
| 495 |  |  | 88,5 | 5,84 | 512,12 |
| 496 |  |  | 92,9 | 5,55 | 569,00 |
| 497 |  |  | 92,8 | 5,64 | 489,95 |
| 498 |  |  | 92 | 5,03 | 450,08 |
| 499 |  |  | 96,5 | 4,87 | 397,11 |
| 500 |  |  | 96,1 | 5,26 | 451,06 |

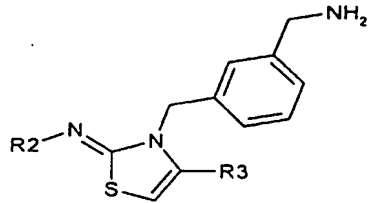
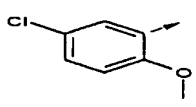
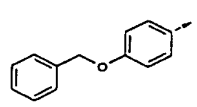
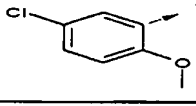
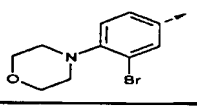
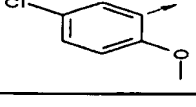
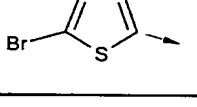
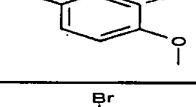
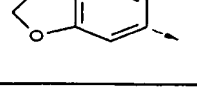
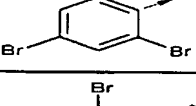

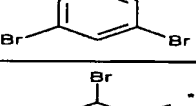
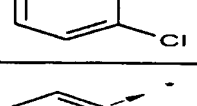
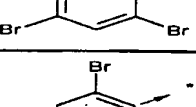
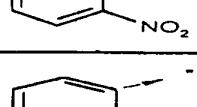
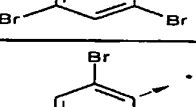
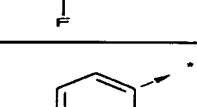
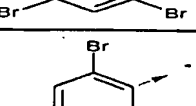
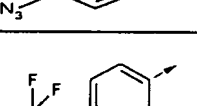
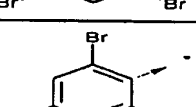
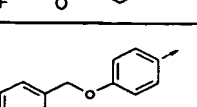

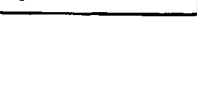
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|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 501 |  |  | 96,1 | 4,95 | 462,07 |
| 502 |  |  | 96,3 | 5,15 | 435,08 |
| 503 |  |  | 96,2 | 5,31 | 458,11 |
| 504 |  |  | 96,5 | 5,57 | 501,08 |
| 505 |  |  | 89,3 | 5,86 | 523,15 |
| 506 |  |  | 95,8 | 5,46 | 580,03 |
| 507 |  |  | 94,2 | 5,45 | 500,96 |
| 508 |  |  | 93,5 | 5,07 | 461,08 |
| 509 |  |  | 98,5 | 4,29 | 408,18 |
| 510 |  |  | 97,2 | 4,98 | 462,13 |
| 511 |  |  | 96,4 | 4,81 | 473,19 |

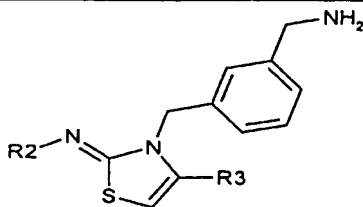
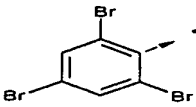
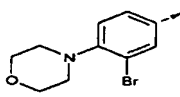
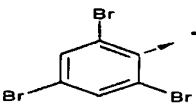
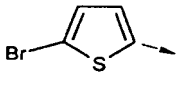
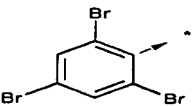
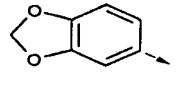
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 512 |  |  | 96,3 | 4,9 | 446,17 |
| 513 |  |  | 94,7 | 4,93 | 469,19 |
| 514 |  |  | 96,9 | 5,29 | 512,17 |
| 515 |  |  | 90,6 | 5,33 | 534,20 |
| 516 |  |  | 96,3 | 5,15 | 591,13 |
| 517 |  |  | 93,5 | 5,47 | 512,04 |
| 518 |  |  | 95 | 4,65 | 472,19 |
| 519 |  |  | 95,5 | 5,14 | 420,13 |
| 520 |  |  | 95,6 | 5,63 | 474,07 |
| 521 |  |  | 93,8 | 5,35 | 485,10 |
| 522 |  |  | 95,1 | 5,53 | 458,09 |

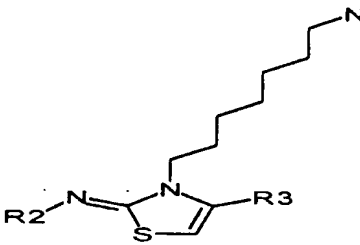
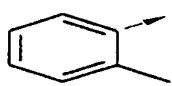
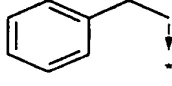
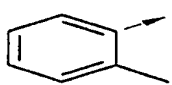
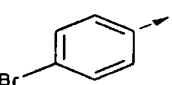
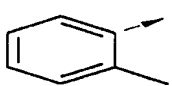
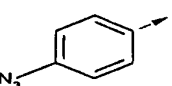
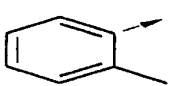
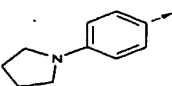
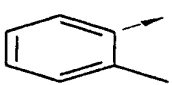
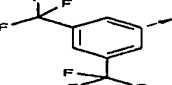
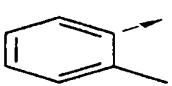
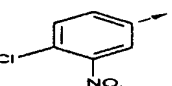
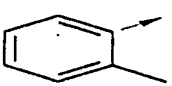
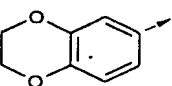
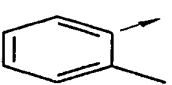
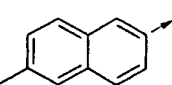
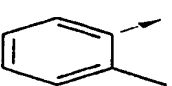
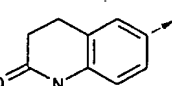
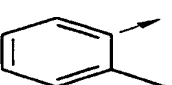
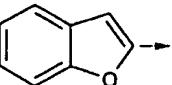
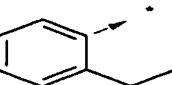
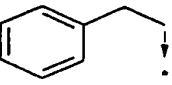
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 523 |  |  | 94,2 | 5,67 | 481,10 |
| 524 |  |  | 94,6 | 5,9 | 524,09 |
| 525 |  |  | 88,4 | 6,15 | 546,11 |
| 526 |  |  | 92,6 | 5,83 | 603,07 |
| 527 |  |  | 89,8 | 5,87 | 523,97 |
| 528 |  |  | 92,3 | 5,41 | 484,11 |
| 529 |  |  | 98,2 | 3,75 | 380,18 |
| 530 |  |  | 96,4 | 4,35 | 434,11 |
| 531 |  |  | 96,5 | 4,19 | 445,13 |
| 532 |  |  | 95,7 | 4,25 | 418,14 |
| 533 |  |  | 94,4 | 4,33 | 441,13 |

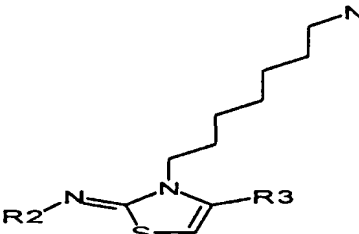
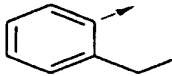
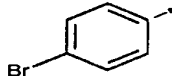
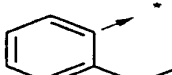
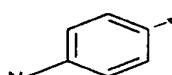
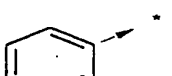
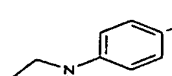
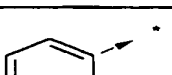
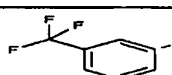
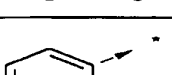
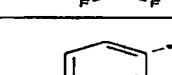
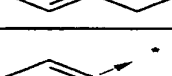
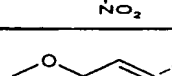
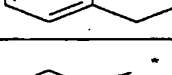
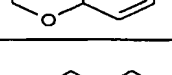
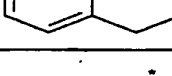
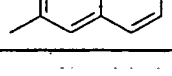
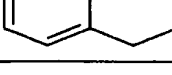
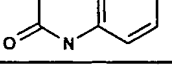
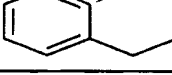
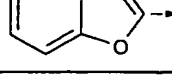
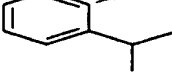
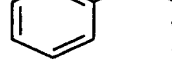
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 534 |  |  | 95,5 | 4,69 | 484,14 |
| 535 |  |  | 89,5 | 4,81 | 506,18 |
| 536 |  |  | 95,5 | 4,54 | 563,08 |
| 537 |  |  | 92,2 | 4,79 | 484,03 |
| 538 |  |  | 93,7 | 4,07 | 444,14 |
| 539 |  |  | 95,4 | 4,25 | 416,10 |
| 540 |  |  | 95,7 | 5,05 | 470,07 |
| 541 |  |  | 95,6 | 4,81 | 481,05 |
| 542 |  |  | 95,4 | 4,96 | 454,07 |
| 543 |  |  | 94,4 | 5,05 | 477,10 |
| 544 |  |  | 95,9 | 5,4 | 520,04 |

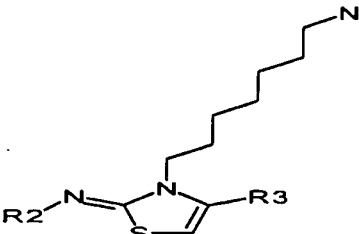
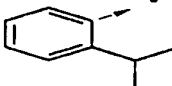
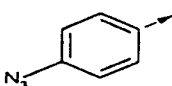
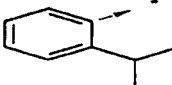
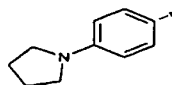
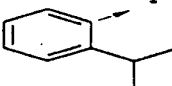
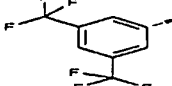
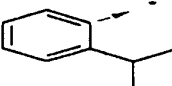
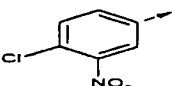
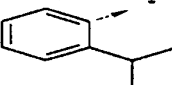
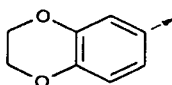
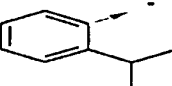
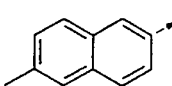
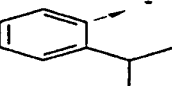
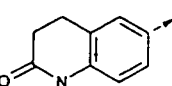
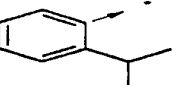
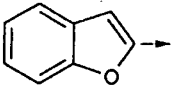
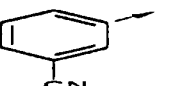
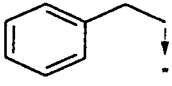
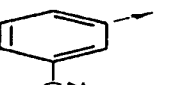
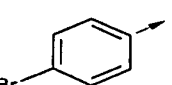
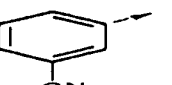
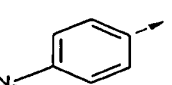
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 545 |  |  | 89,5 | 5,51 | 542,11 |
| 546 |  |  | 94 | 5,26 | 599,02 |
| 547 |  |  | 92,9 | 5,4 | 519,93 |
| 548 |  |  | 92,3 | 4,72 | 480,08 |
| 549 |  |  | 92 | 6,01 | 585,84 |
| 550 |  |  | 96,7 | 6,18 | 639,79 |
| 551 |  |  | 95,8 | 5,84 | 650,83 |
| 552 |  |  | 96 | 6,04 | 623,81 |
| 553 |  |  | 94,7 | 6,22 | 646,85 |
| 554 |  |  | 95 | 6,39 | 689,82 |
| 555 |  |  | 88,8 | 6,7 | 711,88 |

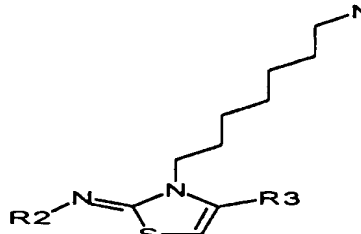

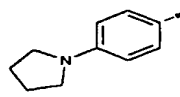
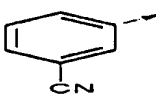
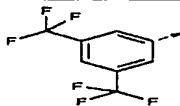
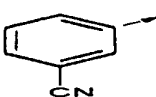
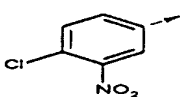
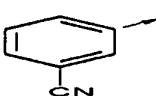
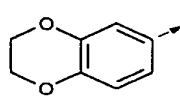
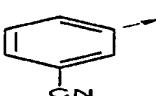
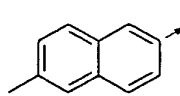
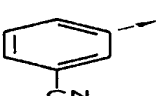
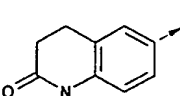
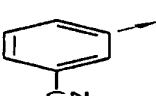
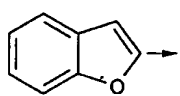

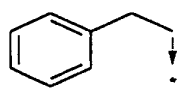

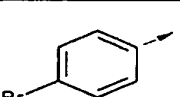

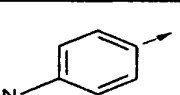
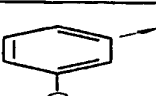
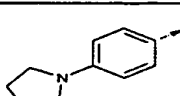
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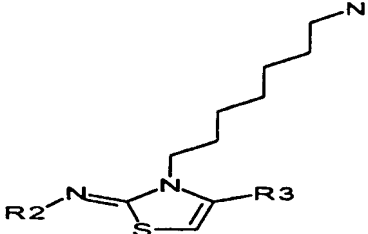
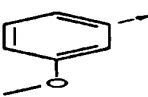
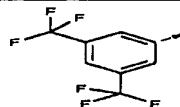
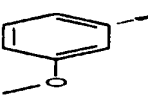
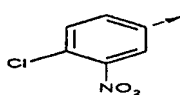
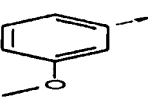
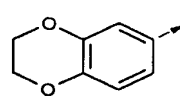
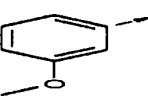
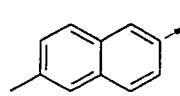
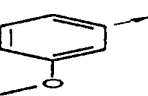
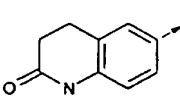
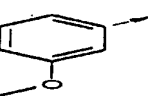
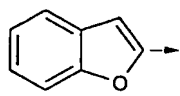
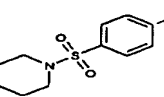
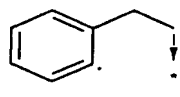
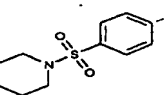
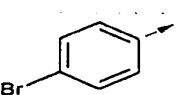
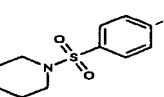
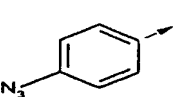
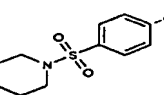
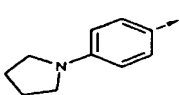
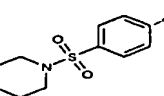
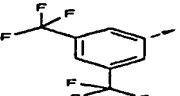
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 556 |  |  | 94,9 | 6,4 | 768,76 |
| 557 |  |  | 95 | 6,35 | 689,71 |
| 558 |  |  | 93,7 | 6,01 | 649,83 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 559 |  |  | 87,5 | 4,07 | 408,18 |
| 560 |  |  | 89,6 | 4,15 | 458,09 |
| 561 |  |  | 89,5 | 4,04 | 421,17 |
| 562 |  |  | 54,6 | 4,37 | 449,23 |
| 563 |  |  | 92,7 | 4,85 | 516,14 |
| 564 |  |  | 92,5 | 4,27 | 459,14 |
| 565 |  |  | 94,2 | 3,87 | 438,18 |
| 566 |  |  | 92,6 | 4,41 | 444,2 |
| 567 |  |  | 92,2 | 3,5 | 449,21 |
| 568 |  |  | 92,4 | 4,53 | 420,17 |
| 569 |  |  | 86,7 | 4,23 | 422,21 |

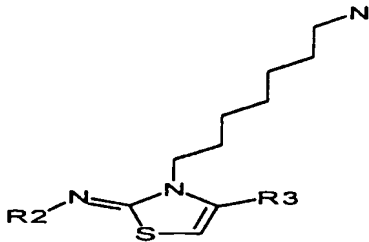
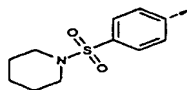
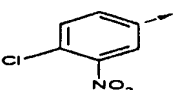
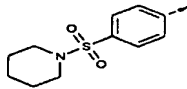
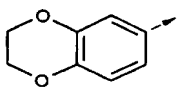
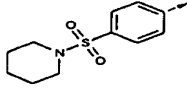
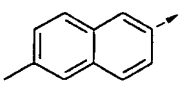
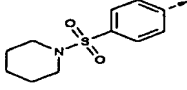
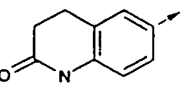
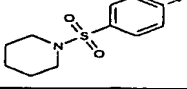
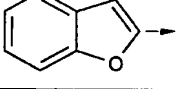
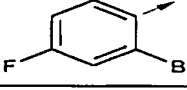
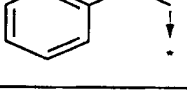
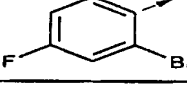
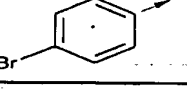
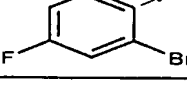
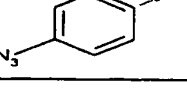
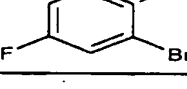
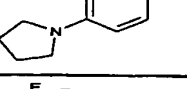
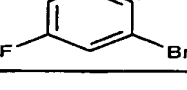
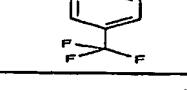
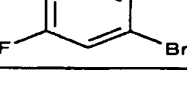
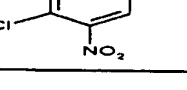
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 570 |  |  | 93,7 | 4,38 | 472,12 |
| 571 |  |  | 88,7 | 4,27 | 435,19 |
| 572 |  |  | 64,2 | 4,53 | 463,25 |
| 573 |  |  | 93,8 | 5,15 | 530,18 |
| 574 |  |  | 93,6 | 4,55 | 473,17 |
| 575 |  |  | 86,8 | 4,07 | 452,21 |
| 576 |  |  | 93,4 | 4,65 | 458,24 |
| 577 |  |  | 91,8 | 3,71 | 463,23 |
| 578 |  |  | 91,6 | 4,85 | 434,20 |
| 579 |  |  | 83,1 | 4,38 | 436,23 |
| 580 |  |  | 92,7 | 4,56 | 486,14 |

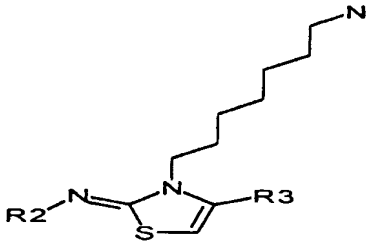
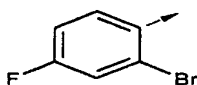
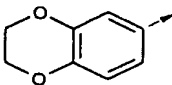
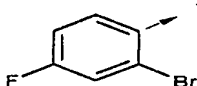
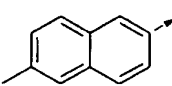
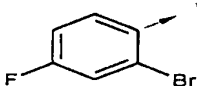
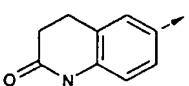
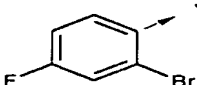
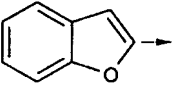
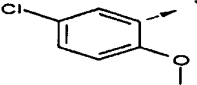
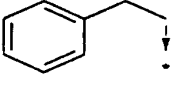
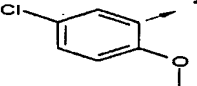
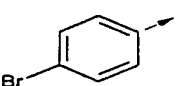
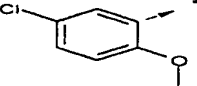
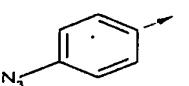
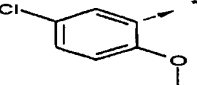
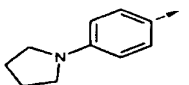
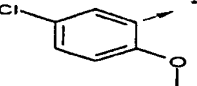
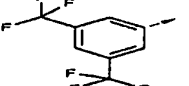
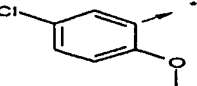
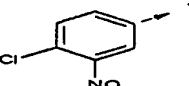
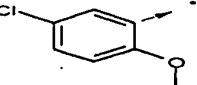
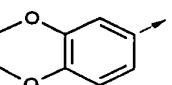
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 581 |  |  | 88,9 | 4,43 | 449,24 |
| 582 |  |  | 80,4 | 4,65 | 477,25 |
| 583 |  |  | 93 | 5,34 | 544,19 |
| 584 |  |  | 94,3 | 4,75 | 487,20 |
| 585 |  |  | 93,2 | 4,23 | 466,23 |
| 586 |  |  | 94 | 4,82 | 472,28 |
| 587 |  |  | 92,1 | 3,88 | 477,28 |
| 588 |  |  | 91,7 | 5,06 | 448,23 |
| 589 |  |  | 83,1 | 4,62 | 419,20 |
| 590 |  |  | 93 | 5,06 | 469,09 |
| 591 |  |  | 88 | 4,89 | 432,18 |

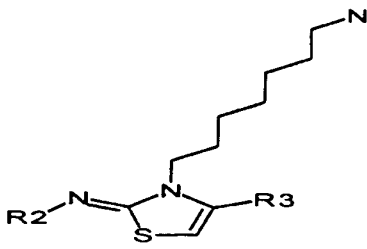
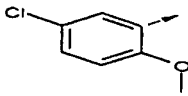
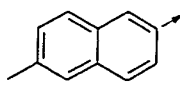
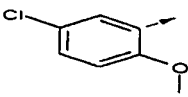
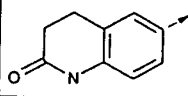
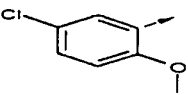
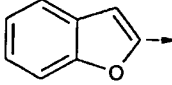
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 592 |  |  | 88,5 | 5,02 | 460,23 |
| 593 |  |  | 93,2 | 5,69 | 527,16 |
| 594 |  |  | 91,6 | 5,11 | 470,15 |
| 595 |  |  | 90,2 | 4,53 | 449,19 |
| 596 |  |  | 91,9 | 5,4 | 455,19 |
| 597 |  |  | 90,2 | 3,99 | 460,20 |
| 598 |  |  | 93 | 5,41 | 431,16 |
| 599 |  |  | 86,1 | 4,05 | 424,22 |
| 600 |  |  | 91,8 | 4,17 | 474,12 |
| 601 |  |  | 90,2 | 4,04 | 437,19 |
| 602 |  |  | 86,4 | 4,34 | 465,24 |

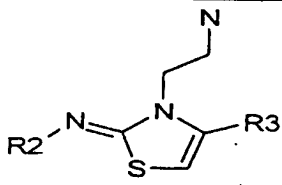
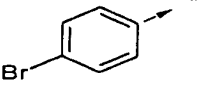
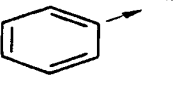
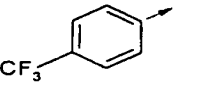
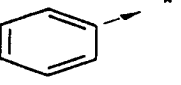
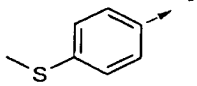
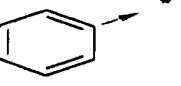
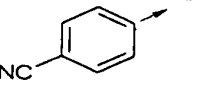
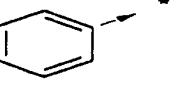
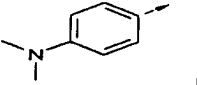
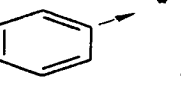
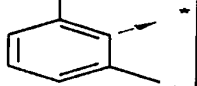
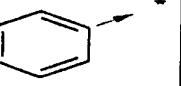
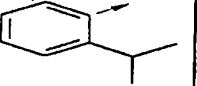
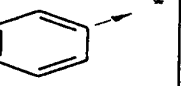
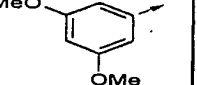
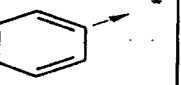
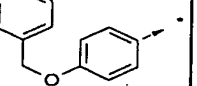
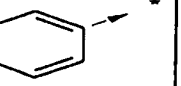
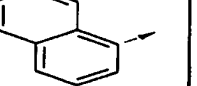
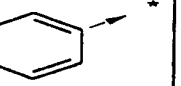
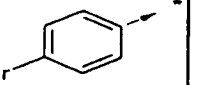
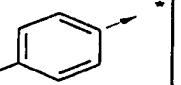
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 603 |  |  | 93,5 | 4,91 | 532,19 |
| 604 |  |  | 93,4 | 4,3 | 475,16 |
| 605 |  |  | 87,9 | 3,86 | 454,20 |
| 606 |  |  | 91,8 | 4,47 | 460,25 |
| 607 |  |  | 90,7 | 3,48 | 465,21 |
| 608 |  |  | 92 | 4,55 | 436,19 |
| 609 |  |  | 85,9 | 5,19 | 541,25 |
| 610 |  |  | 92,4 | 5,6 | 591,13 |
| 611 |  |  | 89,7 | 5,45 | 554,23 |
| 612 |  |  | 88,7 | 5,58 | 582,28 |
| 613 |  |  | 93,2 | 6,06 | 649,24 |

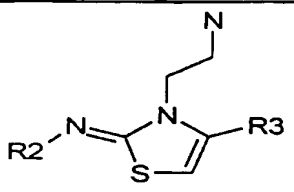
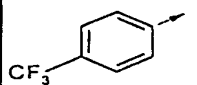
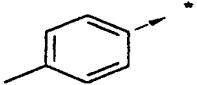
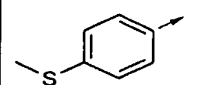
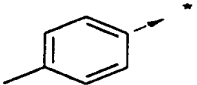
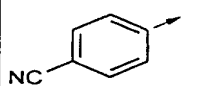
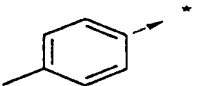
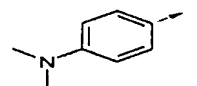
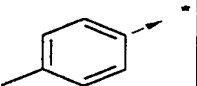
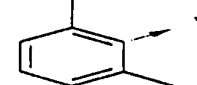
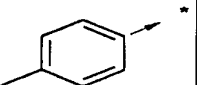
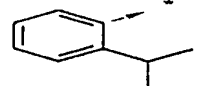
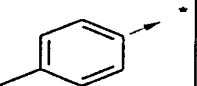
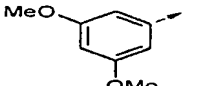
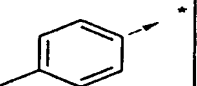
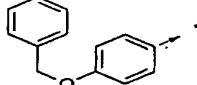
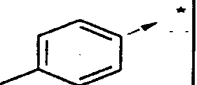
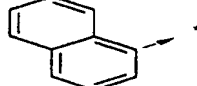
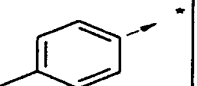
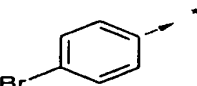
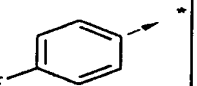
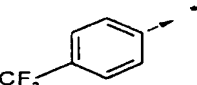
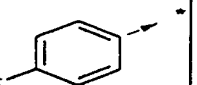
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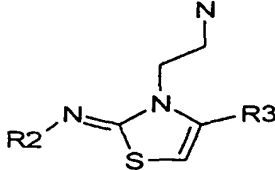
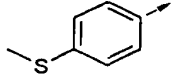
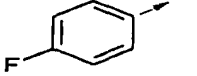
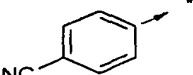
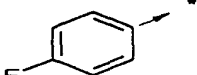
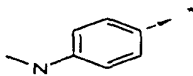
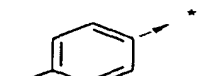
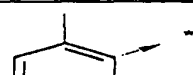
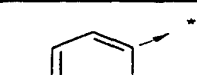

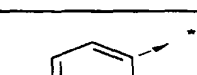
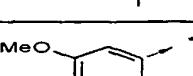
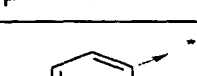
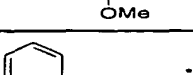
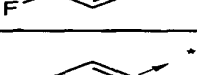
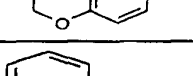
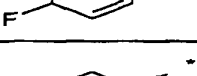

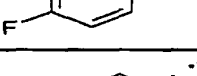
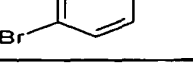
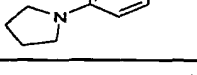
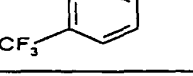
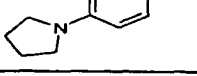
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 614 |  |  | 94,1 | 5,55 | 592,18 |
| 615 |  |  | 90 | 5,09 | 571,23 |
| 616 |  |  | 93,3 | 5,91 | 577,26 |
| 617 |  |  | 91,4 | 4,53 | 582,24 |
| 618 |  |  | 92,1 | 5,84 | 553,22 |
| 619 |  |  | 76,6 | 5,06 | 490,15 |
| 620 |  |  | 91,2 | 5,56 | 539,99 |
| 621 |  |  | 86,7 | 5,39 | 503,12 |
| 622 |  |  | 81 | 5,47 | 531,15 |
| 623 |  |  | 92,2 | 6,13 | 598,06 |
| 624 |  |  | 84,8 | 5,59 | 541,03 |

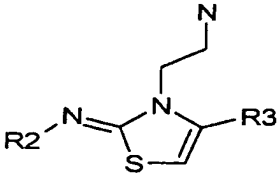
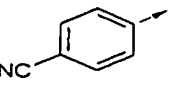
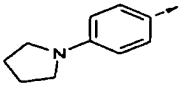
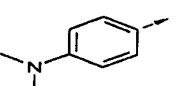
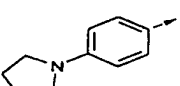
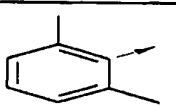
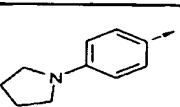
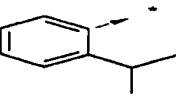
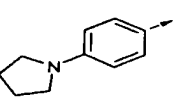
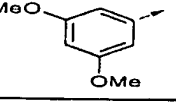
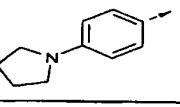
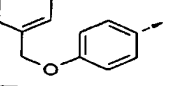
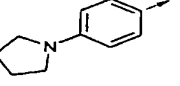
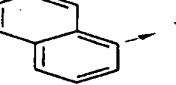
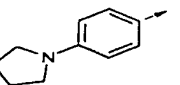
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 625 |  |  | 88 | 5,04 | 520,11 |
| 626 |  |  | 91,6 | 5,91 | 526,14 |
| 627 |  |  | 89,4 | 4,49 | 531,11 |
| 628 |  |  | 90,3 | 5,89 | 502,10 |
| 629 |  |  | 83,3 | 4,41 | 458,20 |
| 630 |  |  | 91,5 | 4,72 | 508,08 |
| 631 |  |  | 87,8 | 4,57 | 471,18 |
| 632 |  |  | 57,7 | 4,71 | 499,23 |
| 633 |  |  | 92,8 | 5,54 | 566,12 |
| 634 |  |  | 93,5 | 4,93 | 509,13 |
| 635 |  |  | 89,3 | 4,29 | 488,19 |

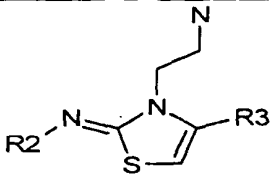
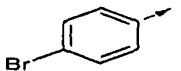
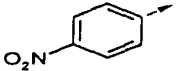
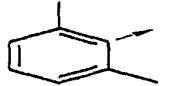
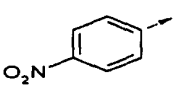
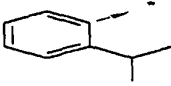
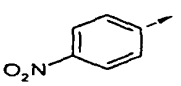
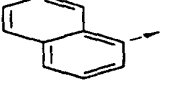
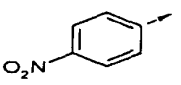
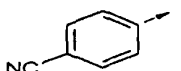
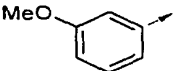
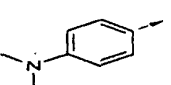
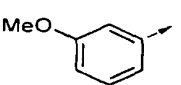
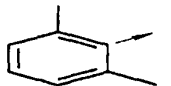
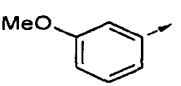
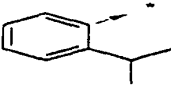
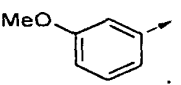
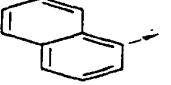
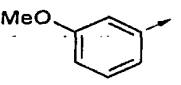
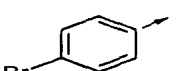
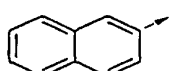
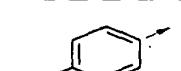
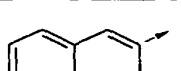
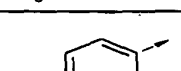
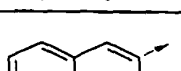
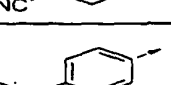
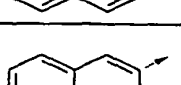
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 636 |  |  | 93,6 | 4,99 | 494,21 |
| 637 |  |  | 91,7 | 3,88 | 499,21 |
| 638 |  |  | 91,9 | 5,22 | 470,18 |

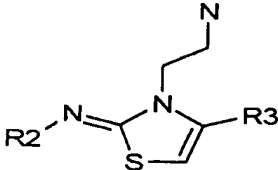
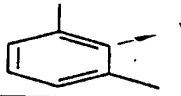
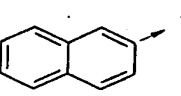
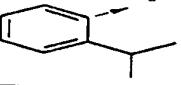
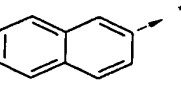
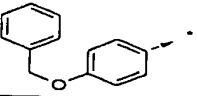
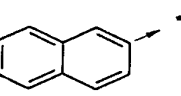
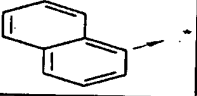
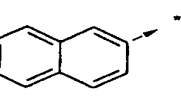
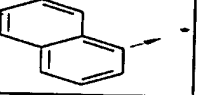
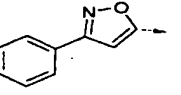
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 639 |  |  | 95 | 7,28 | 374,10 |
| 640 |  |  | 87 | 7,62 | 364,24 |
| 641 |  |  | 84 | 6,75 | 342,23 |
| 642 |  |  | 79 | 6,6 | 321,24 |
| 643 |  |  | 81 | 4,96 | 339,29 |
| 644 |  |  | 82 | 6,44 | 324,28 |
| 645 |  |  | 83 | 7,16 | 338,30 |
| 646 |  |  | 59 | 6,6 | 356,25 |
| 647 |  |  | 86 | 7,28 | 402,23 |
| 648 |  |  | 84 | 7,29 | 346,26 |
| 649 |  |  | 85 | 7,66 | 388,1 |

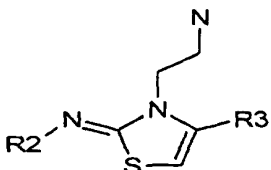
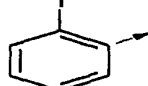
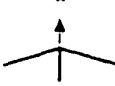
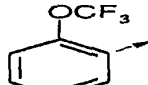
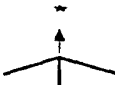
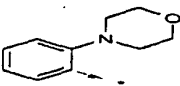
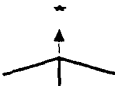
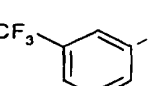
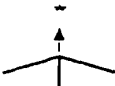
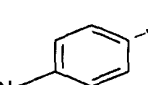

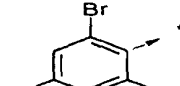

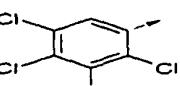

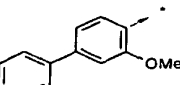

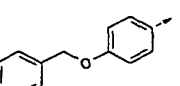
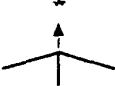
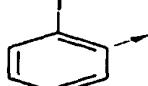
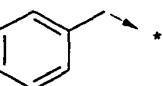
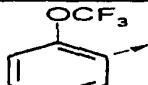
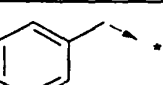
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 650 |  |  | 84 | 7,96 | 378,21 |
| 651 |  |  | 85 | 7,14 | 356,23 |
| 652 |  |  | 73 | 7,02 | 335,26 |
| 653 |  |  | 76 | 5,37 | 353,29 |
| 654 |  |  | 83 | 6,84 | 338,30 |
| 655 |  |  | 81 | 7,51 | 352,29 |
| 656 |  |  | 75 | 6,99 | 370,27 |
| 657 |  |  | 77 | 7,6 | 416,26 |
| 658 |  |  | 80 | 7,65 | 360,25 |
| 659 |  |  | 87 | 7,37 | 392,10 |
| 660 |  |  | 71 | 7,7 | 382,16 |

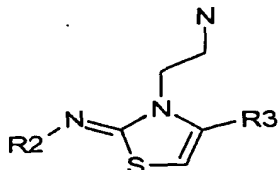
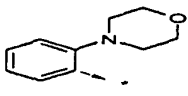
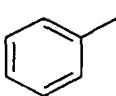
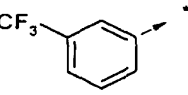
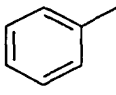
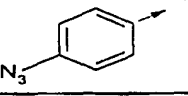
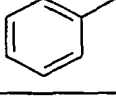
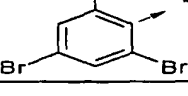
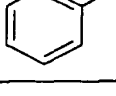
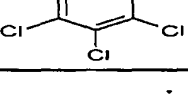
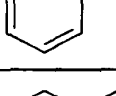
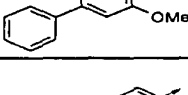
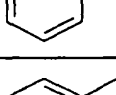
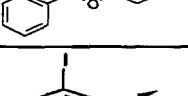
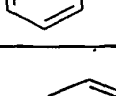
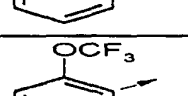
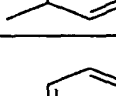
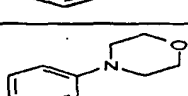
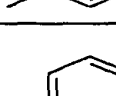
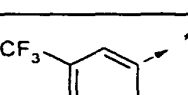
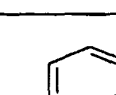


|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 661 |  |  | 63 | 6,9 | 360,21 |
| 662 |  |  | 59 | 6,7 | 339,23 |
| 663 |  |  | 80 | 5,06 | 357,26 |
| 664 |  |  | 63 | 6,61 | 342,26 |
| 665 |  |  | 82 | 7,28 | 356,25 |
| 666 |  |  | 39 | 6,74 | 374,22 |
| 667 |  |  | 85 | 7,42 | 420,24 |
| 668 |  |  | 81 | 7,39 | 364,26 |
| 669 |  |  | 93 | 8,28 | 443,2 |
| 670 |  |  | 88 | 8,61 | 433,2 |
| 671 |  |  | 88 | 7,7 | 411,2 |

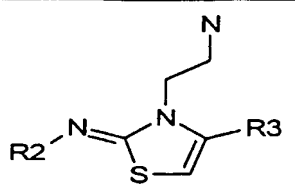
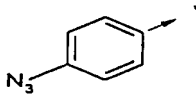
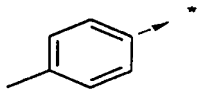
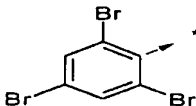
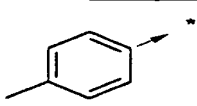
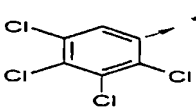
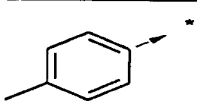
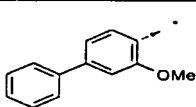
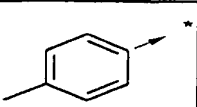
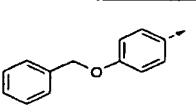
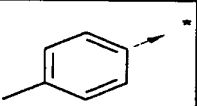
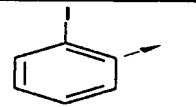
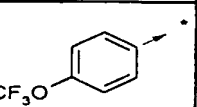
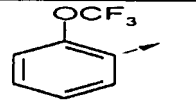
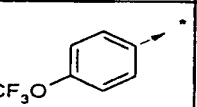
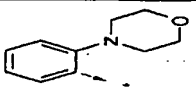
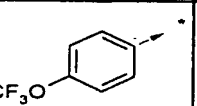
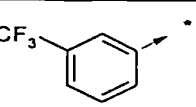
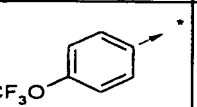
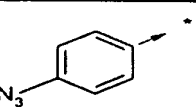
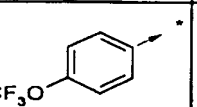
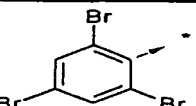
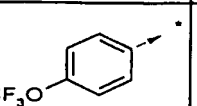
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 672 |  |  | 80 | 7,76 | 390,26 |
| 673 |  |  | 85 | 6,08 | 408,3 |
| 674 |  |  | 89 | 7,36 | 393,3 |
| 675 |  |  | 84 | 8,03 | 407,3 |
| 676 |  |  | 81 | 7,59 | 425,3 |
| 677 |  |  | 83 | 8,03 | 471,3 |
| 678 |  |  | 91 | 8,24 | 415,2 |

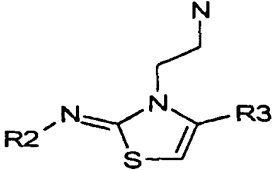
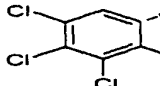
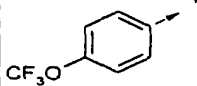
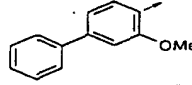
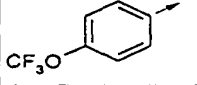
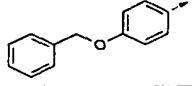
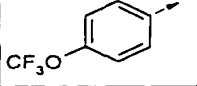
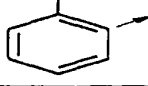
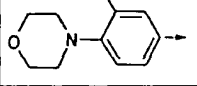
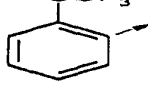
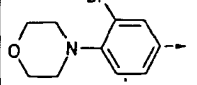
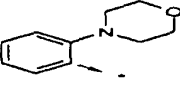
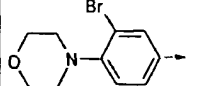
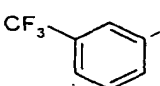
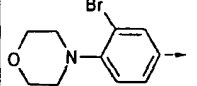
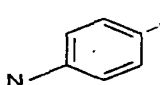
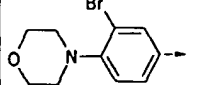
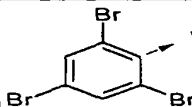
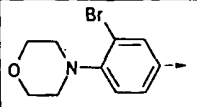
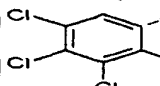
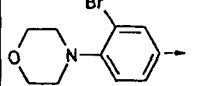
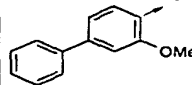
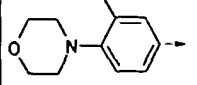
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 679 |  |  | 78 | 7,41 | 419,09 |
| 680 |  |  | 75 | 6,98 | 369,23 |
| 681 |  |  | 81 | 7,51 | 383,23 |
| 682 |  |  | 85 | 7,46 | 391,20 |
| 683 |  |  | 74 | 6,79 | 351,21 |
| 684 |  |  | 81 | 5,18 | 369,26 |
| 685 |  |  | 76 | 6,73 | 354,26 |
| 686 |  |  | 87 | 7,39 | 368,27 |
| 687 |  |  | 80 | 7,48 | 376,22 |
| 688 |  |  | 83 | 8,14 | 424,11 |
| 689 |  |  | 83 | 8,37 | 414,14 |
| 690 |  |  | 78 | 7,48 | 371,21 |
| 691 |  |  | 85 | 5,88 | 389,24 |

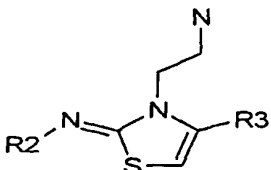
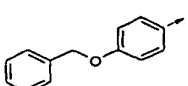
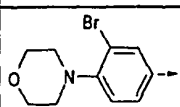
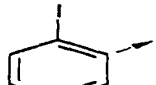
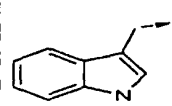
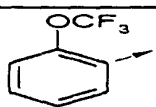
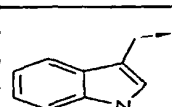
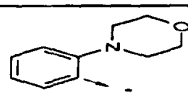
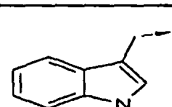
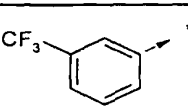
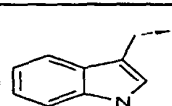
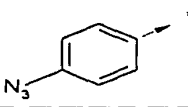
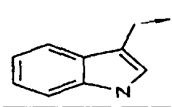
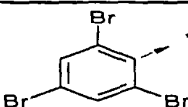
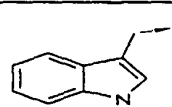
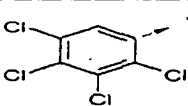
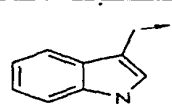
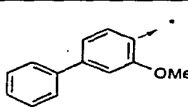
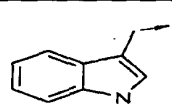
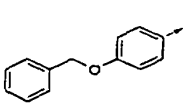
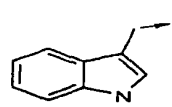
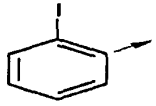
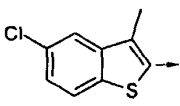
|  | | | | | |
|---|--|--|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 692 |  |  | 79 | 7,53 | 374,24 |
| 693 |  |  | 83 | 8,1 | 388,23 |
| 694 |  |  | 77 | 8,18 | 452,23 |
| 695 |  |  | 81 | 8,14 | 396,20 |
| 696 |  |  | 76 | 7,94 | 413,16 |

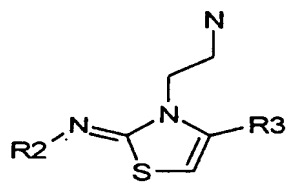
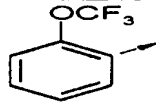
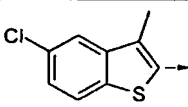
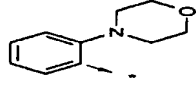
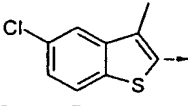
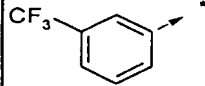
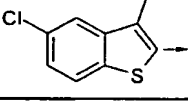
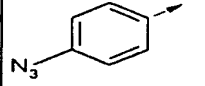
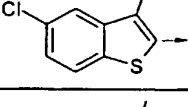
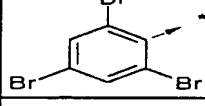
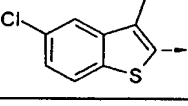
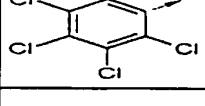
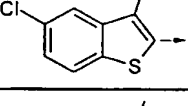
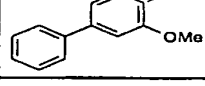
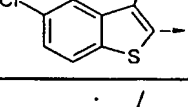
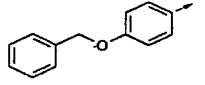
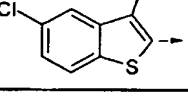
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|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 697 |  |  | 86 | 7,41 | 402,01 |
| 698 |  |  | 93 | 7,57 | 360,16 |
| 699 |  |  | 74 | 6,32 | 361,23 |
| 700 |  |  | 88 | 7,75 | 344,19 |
| 701 |  |  | 83 | 6,88 | 317,22 |
| 702 |  |  | 93 | 8,33 | 509,9 |
| 703 |  |  | 90 | 8,69 | 411,99 |
| 704 |  |  | 72 | 8,16 | 382,21 |
| 705 |  |  | 81 | 7,27 | 382,2 |
| 706 |  |  | 82 | 7,7 | 436,05 |
| 707 |  |  | 91 | 7,85 | 394,16 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 708 |  |  | 80 | 6,59 | 395,19 |
| 709 |  |  | 87 | 7,99 | 378,16 |
| 710 |  |  | 83 | 7,3 | 351,2 |
| 711 |  |  | 89 | 8,58 | 543,85 |
| 712 |  |  | 89 | 8,9 | 446,01 |
| 713 |  |  | 72 | 8,35 | 416,19 |
| 714 |  |  | 82 | 7,62 | 416,19 |
| 715 |  |  | 85 | 7,84 | 436,05 |
| 716 |  |  | 88 | 7,97 | 394,14 |
| 717 |  |  | 75 | 6,82 | 395,21 |
| 718 |  |  | 88 | 8,13 | 378,13 |

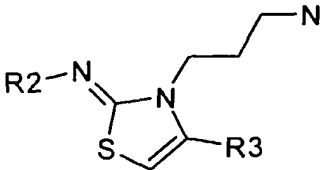
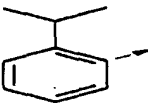
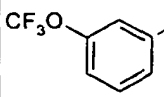
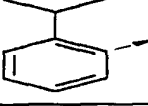
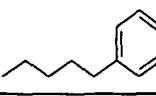
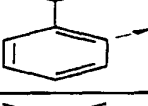
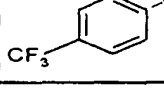
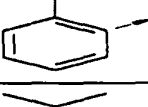
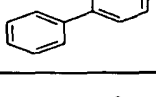
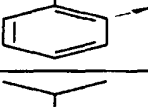
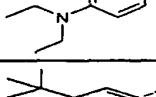

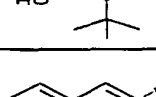
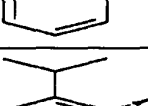
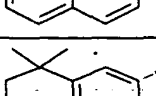
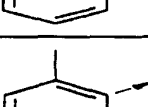
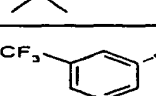

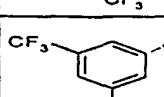
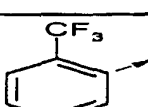
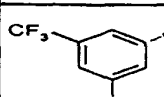
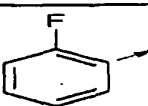
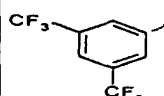


|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 719 |  |  | 78 | 7,5 | 351,2 |
| 720 |  |  | 91 | 8,65 | 543,86 |
| 721 |  |  | 89 | 8,97 | 446,0 |
| 722 |  |  | 75 | 8,55 | 416,19 |
| 723 |  |  | 83 | 7,84 | 416,19 |
| 724 |  |  | 90 | 8,24 | 506,01 |
| 725 |  |  | 88 | 8,37 | 464,1 |
| 726 |  |  | 76 | 7,43 | 465,17 |
| 727 |  |  | 86 | 8,52 | 448,1 |
| 728 |  |  | 84 | 8,11 | 421,11 |
| 729 |  |  | 89 | 8,97 | 613,8 |

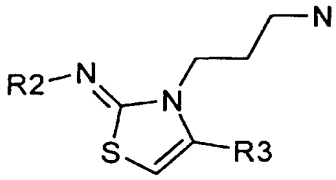
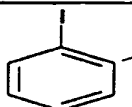
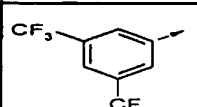
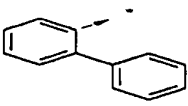
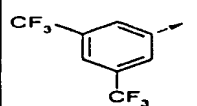
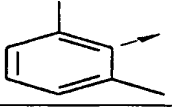
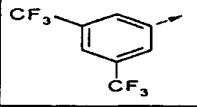
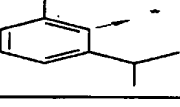
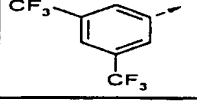
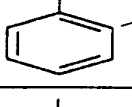
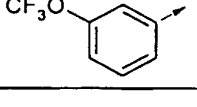
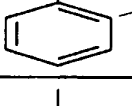
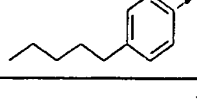
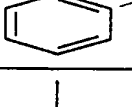
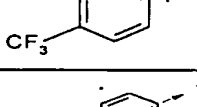
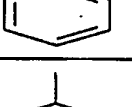
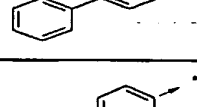
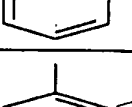
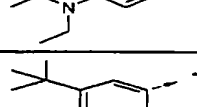
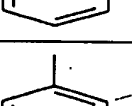
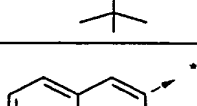
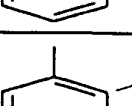
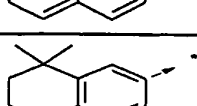
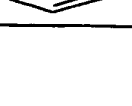
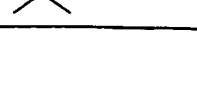
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 730 |  |  | 90 | 9,24 | 515,94 |
| 731 |  |  | 74 | 8,94 | 486,17 |
| 732 |  |  | 81 | 8,51 | 486,16 |
| 733 |  |  | 82 | 8,15 | 584,93 |
| 734 |  |  | 81 | 8,26 | 543,05 |
| 735 |  |  | 69 | 7,31 | 544,1 |
| 736 |  |  | 80 | 8,43 | 527,07 |
| 737 |  |  | 82 | 7,99 | 500,1 |
| 738 |  |  | 88 | 8,92 | 692,79 |
| 739 |  |  | 85 | 9,23 | 594,87 |
| 740 |  |  | 71 | 8,84 | 565,1 |

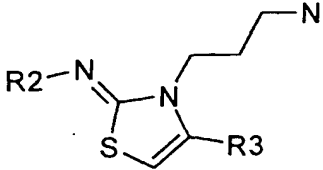
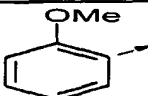
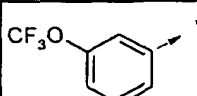
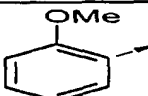
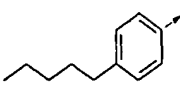
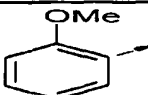
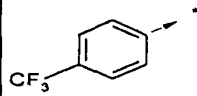
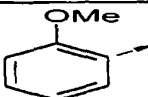
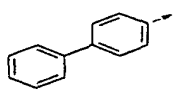
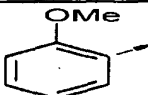
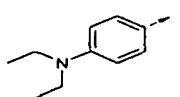
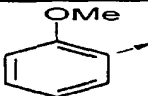
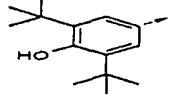
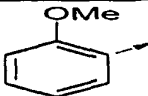
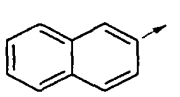
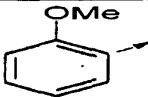
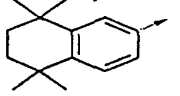
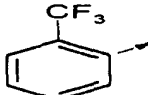
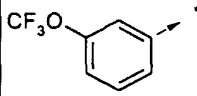
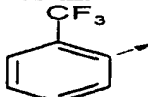
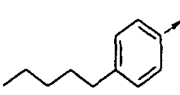
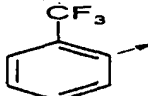
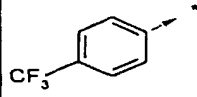
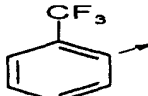
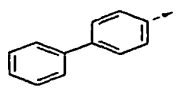
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 741 |  |  | 79 | 8,36 | 565,08 |
| 742 |  |  | 82 | 7,77 | 475,06 |
| 743 |  |  | 81 | 7,91 | 433,13 |
| 744 |  |  | 86 | 6,72 | 434,21 |
| 745 |  |  | 82 | 8,03 | 417,15 |
| 746 |  |  | 74 | 7,32 | 390,17 |
| 747 |  |  | 86 | 8,61 | 582,85 |
| 748 |  |  | 76 | 8,94 | 485,01 |
| 749 |  |  | 73 | 8,33 | 455,19 |
| 750 |  |  | 84 | 7,59 | 455,2 |
| 751 |  |  | 67 | 8,82 | 525,96 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 752 |  |  | 75 | 8,93 | 484,08 |
| 753 |  |  | 68 | 8,08 | 485,14 |
| 754 |  |  | 75 | 9,08 | 468,06 |
| 755 |  |  | 78 | 8,77 | 441,06 |
| 756 |  |  | 81 | 9,56 | 633,79 |
| 757 |  |  | 81 | 9,77 | 535,91 |
| 758 |  |  | 70 | 9,55 | 506,12 |
| 759 |  |  | 78 | 9,21 | 506,13 |

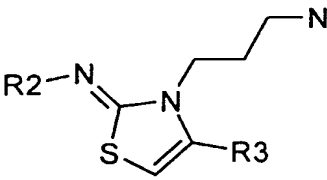
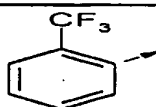
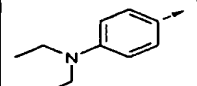
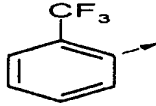
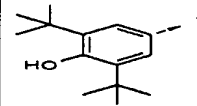
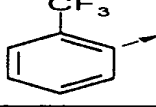
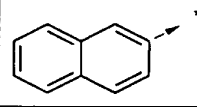
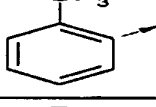
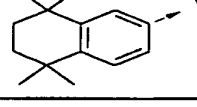
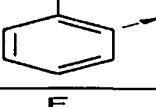
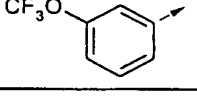
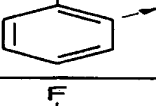
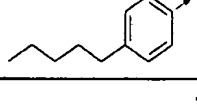
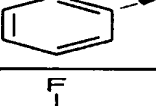
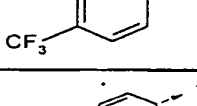
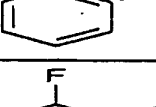
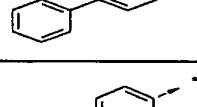
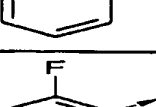
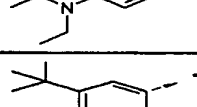
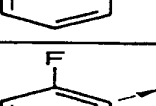
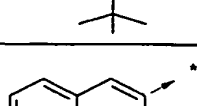
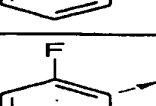
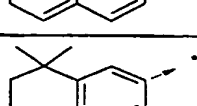
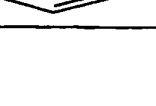
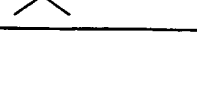
- 170 -

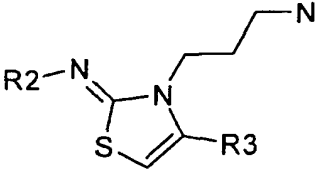
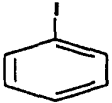
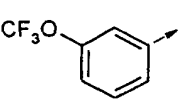
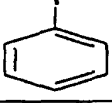
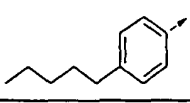
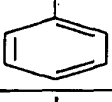
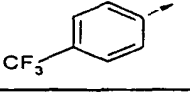
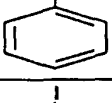
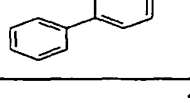
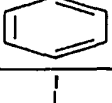
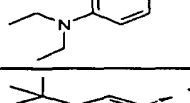
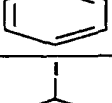
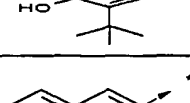
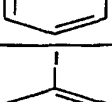
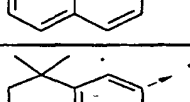
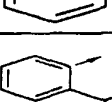
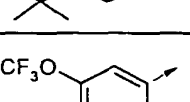
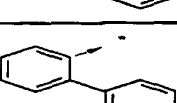
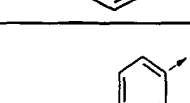
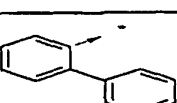
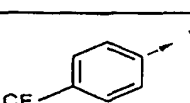
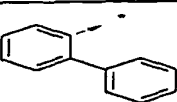
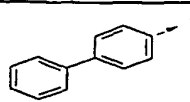


|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 760 |  |  | 92,9 | 5,03 | 436,23 |
| 761 |  |  | 90,4 | 5,56 | 422,33 |
| 762 |  |  | 94,36 | 4,94 | 420,26 |
| 763 |  |  | 88,08 | 5,09 | 428,30 |
| 764 |  |  | 77,6 | 4,42 | 423,34 |
| 765 |  |  | 92,4 | 5,52 | 480,38 |
| 766 |  |  | 84,6 | 4,8 | 402,25 |
| 767 |  |  | 89,8 | 5,79 | 462,37 |
| 768 |  |  | 91,9 | 5,12 | 460,20 |
| 769 |  |  | 91,4 | 5,14 | 476,21 |
| 770 |  |  | 94,2 | 5,67 | 514,18 |
| 771 |  |  | 93,0 | 5,37 | 464,18 |

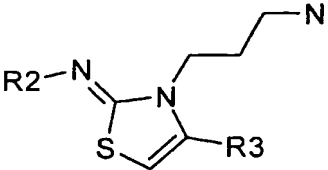
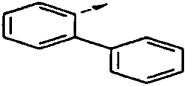
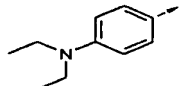
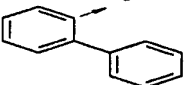
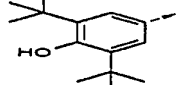
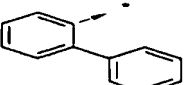
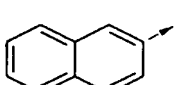
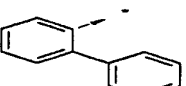
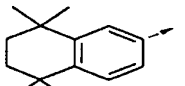
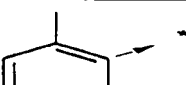
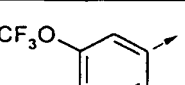
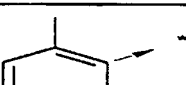

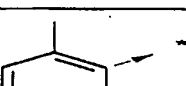
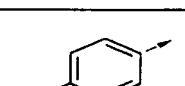
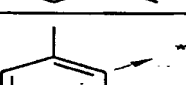
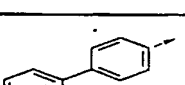
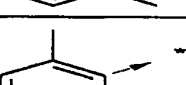
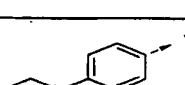
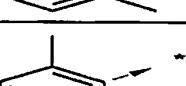
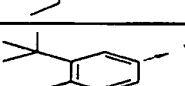
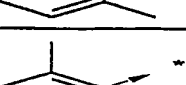
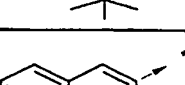
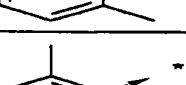
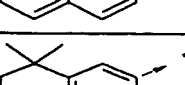
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 772 |  |  | 94,5 | 5,64 | 572,07 |
| 773 |  |  | 87,9 | 5,76 | 522,21 |
| 774 |  |  | 91,2 | 5,12 | 474,23 |
| 775 |  |  | 78,1 | 5,82 | 530,27 |
| 776 |  |  | 88,8 | 4,55 | 408,22 |
| 777 |  |  | 90,7 | 5,13 | 394,34 |
| 778 |  |  | 92,6 | 4,45 | 392,23 |
| 779 |  |  | 88,8 | 4,65 | 400,30 |
| 780 |  |  | 76,5 | 3,94 | 395,33 |
| 781 |  |  | 90,8 | 5,11 | 452,38 |
| 782 |  |  | 87,7 | 4,33 | 374,29 |
| 783 |  |  | 91,5 | 5,35 | 434,38 |

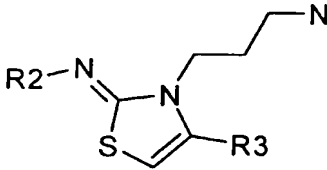
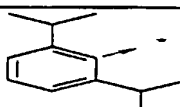
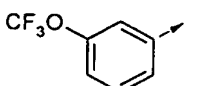
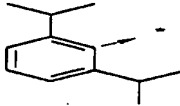
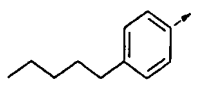
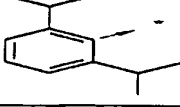
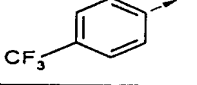
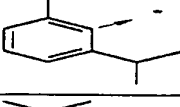
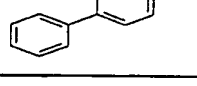
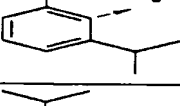
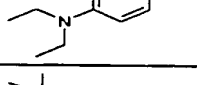
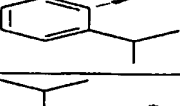
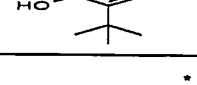
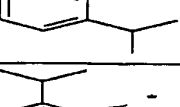
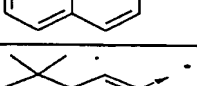
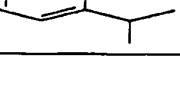
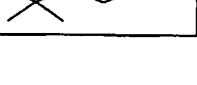
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|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 784 |  |  | 92,1 | 4,61 | 424,25 |
| 785 |  |  | 89,3 | 5,28 | 410,33 |
| 786 |  |  | 95 | 4,49 | 408,22 |
| 787 |  |  | 82,4 | 4,74 | 416,27 |
| 788 |  |  | 73,8 | 3,95 | 411,30 |
| 789 |  |  | 92,9 | 5,27 | 468,36 |
| 790 |  |  | 84,9 | 4,39 | 390,28 |
| 791 |  |  | 91,5 | 5,53 | 450,37 |
| 792 |  |  | 90 | 5,5 | 462,19 |
| 793 |  |  | 93,9 | 6,25 | 448,31 |
| 794 |  |  | 94,9 | 5,41 | 446,22 |
| 795 |  |  | 93,5 | 5,76 | 454,26 |

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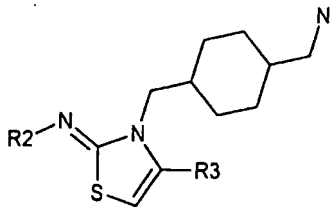
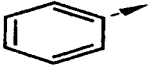
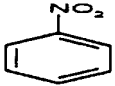
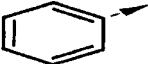
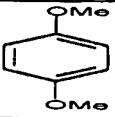
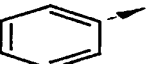
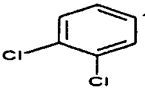
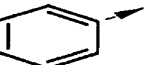
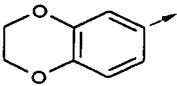
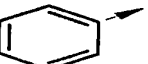
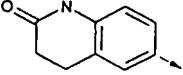
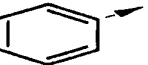
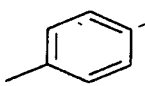
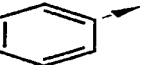
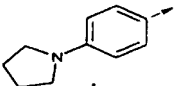
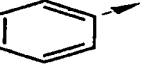
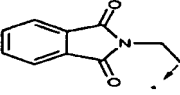
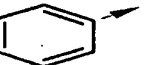
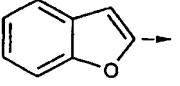
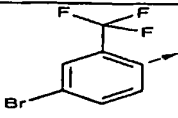
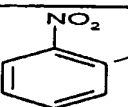
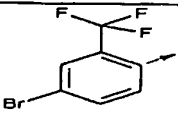
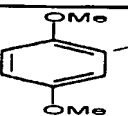
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 796 |  |  | 89,8 | 4,95 | 449,30 |
| 797 |  |  | 92,4 | 6,22 | 506,34 |
| 798 |  |  | 93 | 5,52 | 428,245 |
| 799 |  |  | 92,8 | 6,39 | 488,34 |
| 800 |  |  | 87,6 | 5,11 | 412,20 |
| 801 |  |  | 92,5 | 5,9 | 398,30 |
| 802 |  |  | 93,5 | 5 | 396,20 |
| 803 |  |  | 92,2 | 5,35 | 404,26 |
| 804 |  |  | 90,7 | 4,41 | 399,28 |
| 805 |  |  | 94,2 | 5,87 | 456,34 |
| 806 |  |  | 89,3 | 5,05 | 378,23 |
| 807 |  |  | 90,9 | 6,07 | 438,33 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 808 |  |  | 88,8 | 5,43 | 520,09 |
| 809 |  |  | 94 | 6,19 | 506,19 |
| 810 |  |  | 95,9 | 5,33 | 504,12 |
| 811 |  |  | 92,9 | 5,68 | 512,15 |
| 812 |  |  | 88,9 | 4,8 | 507,18 |
| 813 |  |  | 92,3 | 6,17 | 564,20 |
| 814 |  |  | 93,9 | 5,41 | 486,14 |
| 815 |  |  | 93,5 | 6,35 | 546,18 |
| 816 |  |  | 91,9 | 5,41 | 470,25 |
| 817 |  |  | 93 | 5,98 | 456,34 |
| 818 |  |  | 91,4 | 5,29 | 454,24 |
| 819 |  |  | 90,4 | 5,49 | 462,29 |

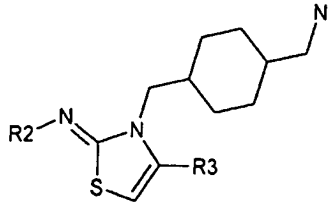
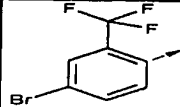
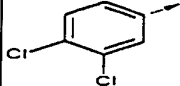
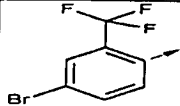
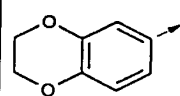
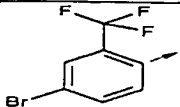
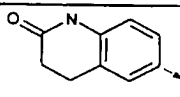
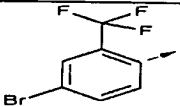
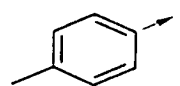
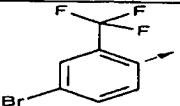
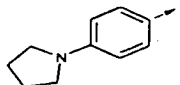
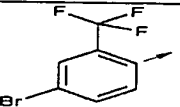
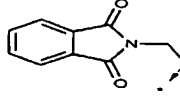
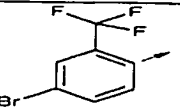
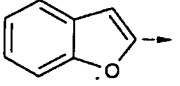
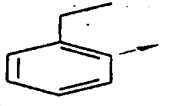
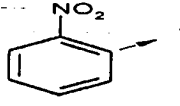
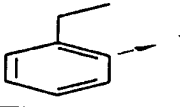
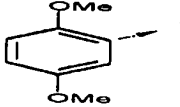
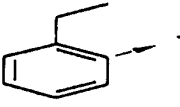
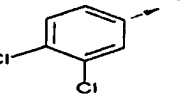
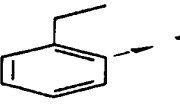
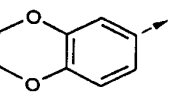
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 820 |  |  | 86,5 | 4,75 | 457,34 |
| 821 |  |  | 90,5 | 5,94 | 514,34 |
| 822 |  |  | 90,1 | 5,21 | 436,26 |
| 823 |  |  | 89,7 | 6,18 | 496,37 |
| 824 |  |  | 79,4 | 4,56 | 422,22 |
| 825 |  |  | 92,5 | 5,08 | 408,32 |
| 826 |  |  | 93 | 4,45 | 406,23 |
| 827 |  |  | 90,2 | 4,63 | 414,26 |
| 828 |  |  | 76,3 | 4,01 | 409,31 |
| 829 |  |  | 94 | 5,08 | 466,36 |
| 830 |  |  | 90,7 | 4,34 | 388,25 |
| 831 |  |  | 92,9 | 5,29 | 448,36 |

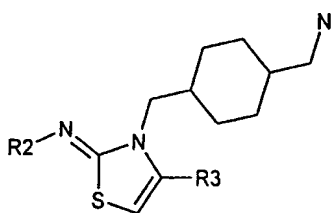
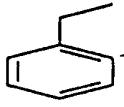
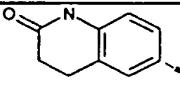
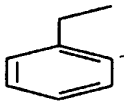
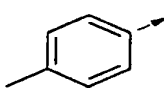
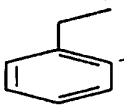
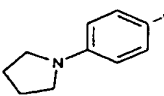
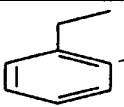
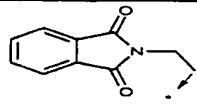

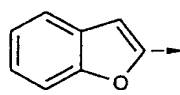
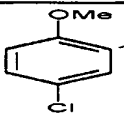
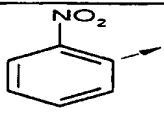
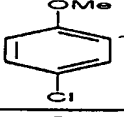
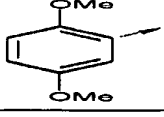
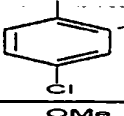
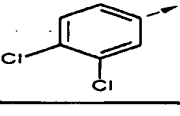
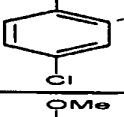
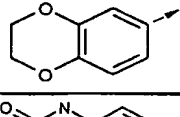
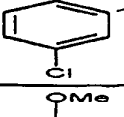
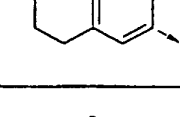
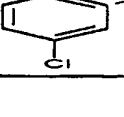
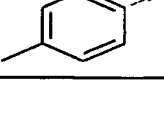
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 832 |  |  | 56 | 5,3 | 478,29 |
| 833 |  |  | 83,9 | 5,7 | 464,38 |
| 834 |  |  | 82,1 | 5,19 | 462,29 |
| 835 |  |  | 80,5 | 5,31 | 470,35 |
| 836 |  |  | 70,6 | 4,8 | 465,39 |
| 837 |  |  | 82,9 | 5,67 | 522,41 |
| 838 |  |  | 81 | 5,07 | 444,33 |
| 839 |  |  | 83,5 | 5,91 | 504,41 |

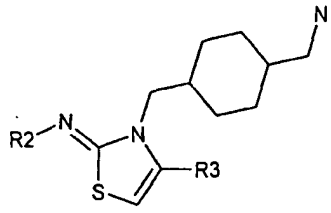
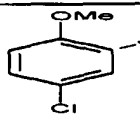
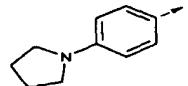
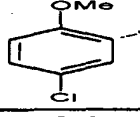
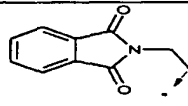
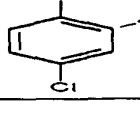
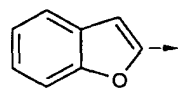
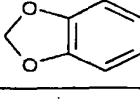
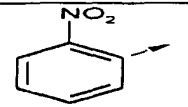
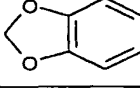
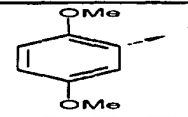
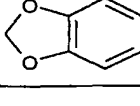
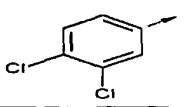
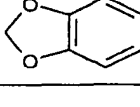
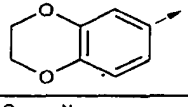
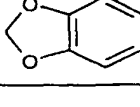
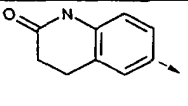
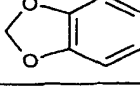
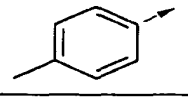
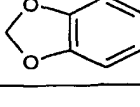
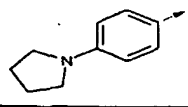
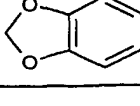
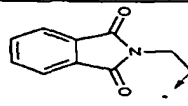
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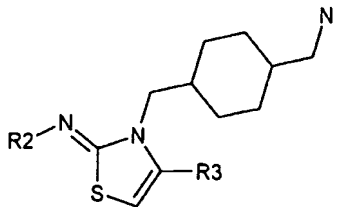
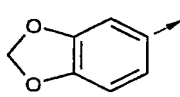
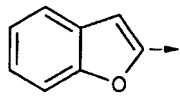
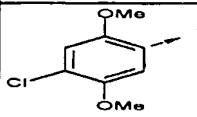
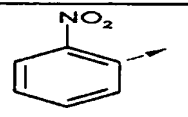
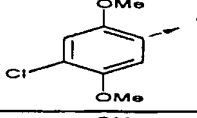
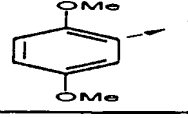
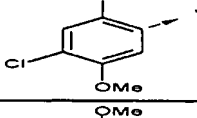
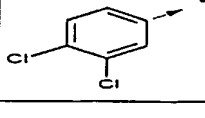
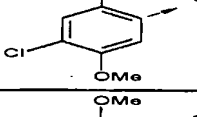
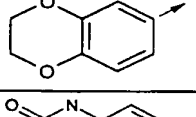
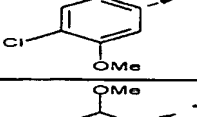
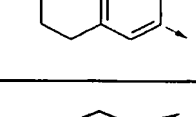
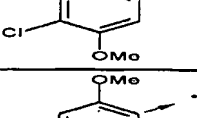
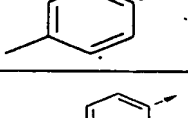
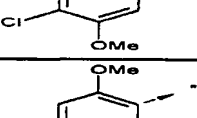
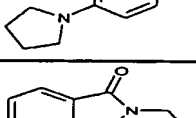
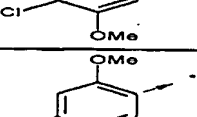
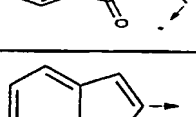
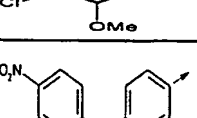
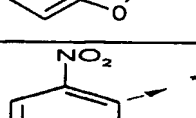
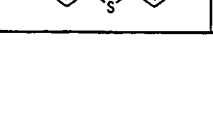

|  | | | | | |
|---|---|---|------------|-------------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 840 |  |  | 35 + 64 | 3,68 + 3,78 | 423,2 |
| 841 |  |  | 98 | 3,7 | 438,3 |
| 842 |  |  | 35 + 63 | 4,3 + 4,4 | 446,2 |
| 843 |  |  | 97 | 3,71 | 436,3 |
| 844 |  |  | 32 + 65 | 3,28 + 3,34 | 447,3 |
| 845 |  |  | 96 | 3,84 | 392,3 |
| 846 |  |  | 96 | 4,18 | 447,3 |
| 847 |  |  | 30 + 64 | 3,62 + 3,64 | 475,3 |
| 848 |  |  | 36 + 61 | 4,46 + 4,61 | 418,3 |
| 849 |  |  | 96 | 5,89 | 569,1 |
| 850 |  |  | 94 | 6,09 | 584,2 |

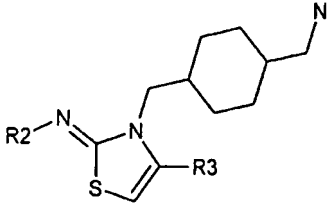
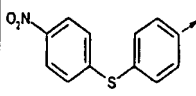
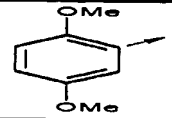
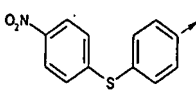
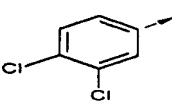
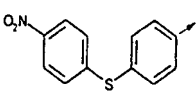
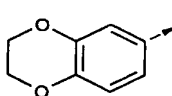
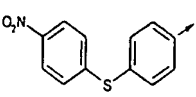
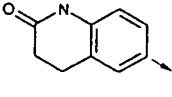
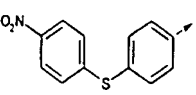
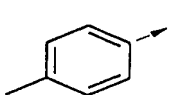
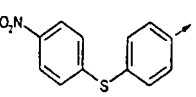
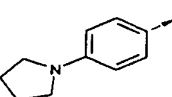
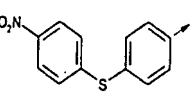
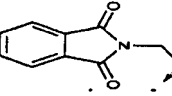
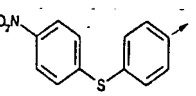
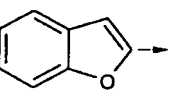
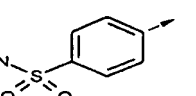
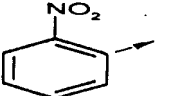
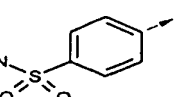
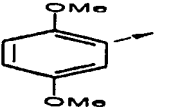
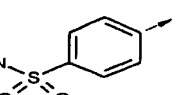
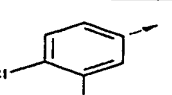
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|  | | | | | |
|---|---|---|------------|-------------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 851 |  |  | 57 + 39 | 6,55 + 6,6 | 592,1 |
| 852 |  |  | 96 | 6,16 | 582,2 |
| 853 |  |  | 28 + 59 | 5,53 + 5,61 | 593,2 |
| 854 |  |  | 95 | 6,35 | 538,2 |
| 855 |  |  | 54 + 41 | 6,8 + 6,88 | 593,3 |
| 856 |  |  | 94 | 5,96 | 621,2 |
| 857 |  |  | 56 + 39 | 6,46 + 6,55 | 564,2 |
| 858 |  |  | 34 + 63 | 4,09 + 4,2 | 451,3 |
| 859 |  |  | 96 | 4,03 | 466,4 |
| 860 |  |  | 33 + 64 | 4,69 + 4,76 | 474,3 |
| 861 |  |  | 27 + 70 | 4,04 + 4,07 | 464,4 |

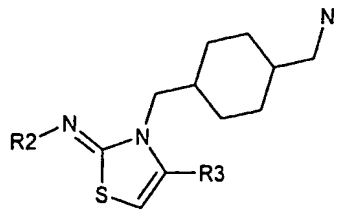
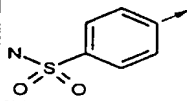
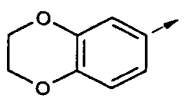
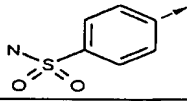
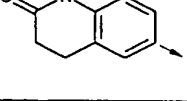
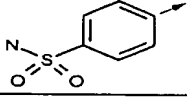
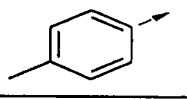
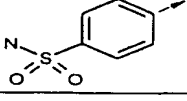
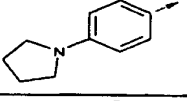
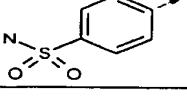
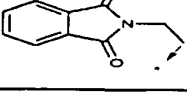
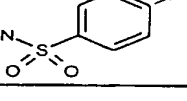
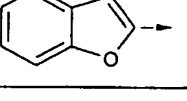
|  | | | | | |
|---|---|---|------------|-------------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 862 |  |  | 33 + 63 | 3,63 + 3,71 | 475,4 |
| 863 |  |  | 95 | 4,18 | 420,4 |
| 864 |  |  | 89 | 4,46 | 475,4 |
| 865 |  |  | 22 + 68 | 3,94 + 3,98 | 503,4 |
| 866 |  |  | 35 + 62 | 4,9 + 5,01 | 446,4 |
| 867 |  |  | 35 + 61 | 4,39 + 4,52 | 487,3 |
| 868 |  |  | 33 + 63 | 4,22 + 4,29 | 502,3 |
| 869 |  |  | 35 + 62 | 5,08 + 5,2 | 510,2 |
| 870 |  |  | 31 + 63 | 4,26 + 4,34 | 500,3 |
| 871 |  |  | 33 + 62 | 3,82 + 3,91 | 511,3 |
| 872 |  |  | 31 + 62 | 4,42 + 4,51 | 456,3 |

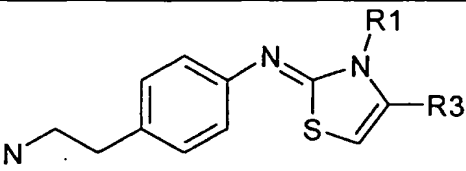
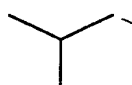
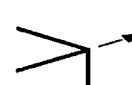
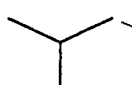
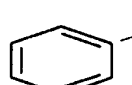
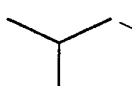
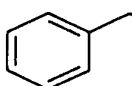
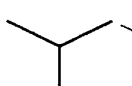
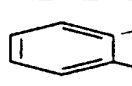
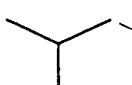
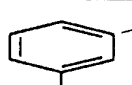
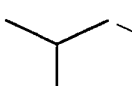
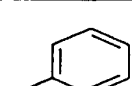
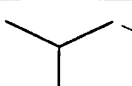
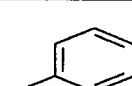
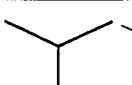
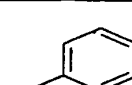
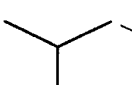
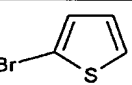

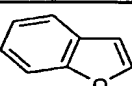
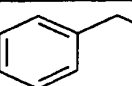
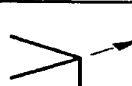
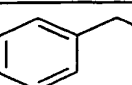
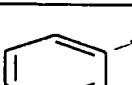
|  | | | | | |
|---|---|---|------------|-------------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 873 |  |  | 29 + 64 | 4,66 + 4,72 | 511,4 |
| 874 |  |  | 33 + 57 | 4,11 + 4,2 | 539,3 |
| 875 |  |  | 35 + 62 | 5,26 + 5,39 | 482,3 |
| 876 |  |  | 32 + 65 | 3,63 + 3,7 | 467,3 |
| 877 |  |  | 97 | 3,69 | 482,4 |
| 878 |  |  | 35 + 62 | 4,2 + 4,28 | 490,3 |
| 879 |  |  | 94 | 3,69 | 480,3 |
| 880 |  |  | 28 + 68 | 3,3 + 3,33 | 491,3 |
| 881 |  |  | 96 | 3,8 | 436,3 |
| 882 |  |  | 96 | 4,18 | 491,4 |
| 883 |  |  | 94 | 3,63 | 519,3 |

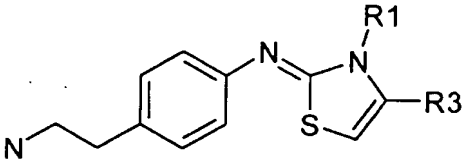
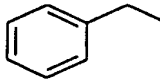
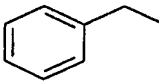
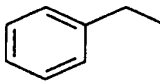
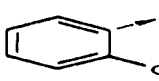
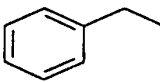
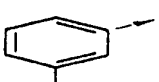
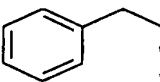
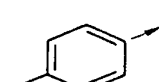
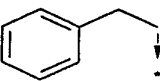
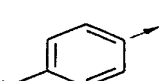
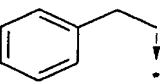
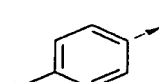
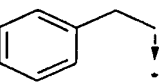
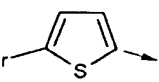
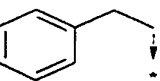
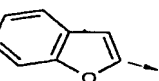
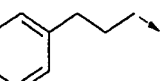

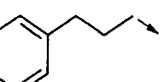
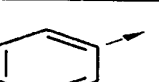
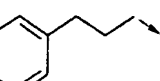
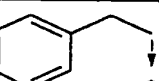
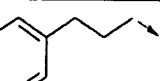
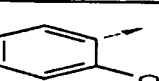
|  | | | | | |
|---|---|---|------------|-------------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 884 |  |  | 36 + 61 | 4,28 + 4,42 | 462,3 |
| 885 |  |  | 36 + 62 | 4,24 + 4,36 | 517,3 |
| 886 |  |  | 28 + 69 | 4,15 + 4,21 | 532,3 |
| 887 |  |  | 35 + 62 | 4,84 + 4,96 | 540,2 |
| 888 |  |  | 33 + 64 | 4,15 + 4,22 | 530,3 |
| 889 |  |  | 32 + 63 | 3,76 + 3,84 | 541,3 |
| 890 |  |  | 32 + 63 | 4,28 + 4,36 | 486,3 |
| 891 |  |  | 24 + 73 | 4,56 + 4,6 | 541,3 |
| 892 |  |  | 31 + 59 | 4,05 + 4,11 | 569,3 |
| 893 |  |  | 35 + 61 | 4,99 + 5,14 | 512,3 |
| 894 |  |  | 33 + 64 | 5,59 + 5,7 | 576,3 |

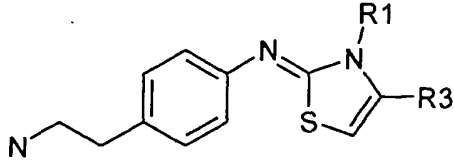
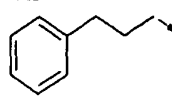
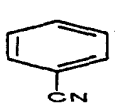
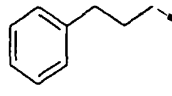
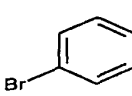
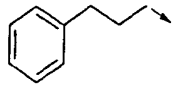
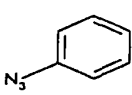
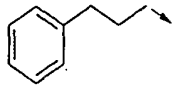
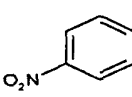
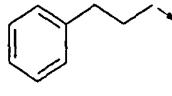
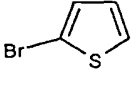
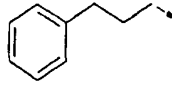
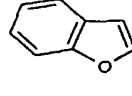
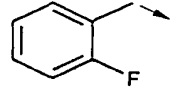
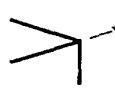
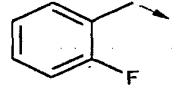
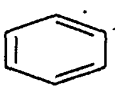
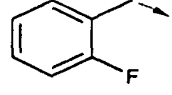
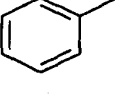
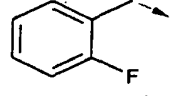

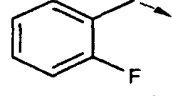
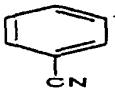
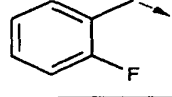
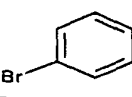
|  | | | | | |
|---|---|---|------------|-------------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 895 |  |  | 35 + 61 | 5,29 + 5,39 | 591,3 |
| 896 |  |  | 26 + 71 | 6,32 + 6,35 | 599,2 |
| 897 |  |  | 34 + 63 | 5,41 + 5,5 | 589,3 |
| 898 |  |  | 35 + 61 | 4,88 + 4,99 | 600,3 |
| 899 |  |  | 35 + 62 | 5,63 + 5,72 | 545,3 |
| 900 |  |  | 34 + 61 | 5,76 + 5,86 | 600,3 |
| 901 |  |  | 34 + 68 | 5,16 + 5,28 | 628,3 |
| 902 |  |  | 98 | 6,45 | 571,3 |
| 903 |  |  | 35 + 60 | 3,84 + 3,93 | 502,3 |
| 904 |  |  | 32 + 62 | 3,72 + 3,79 | 517,3 |
| 905 |  |  | 32 + 62 | 4,59 + 4,68 | 525,2 |

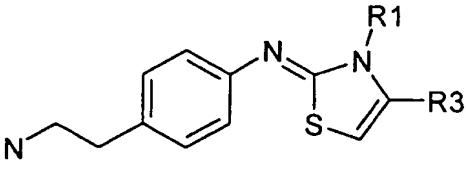
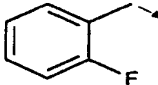
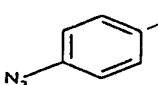
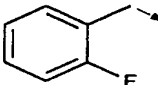
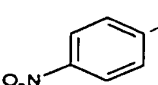
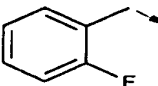
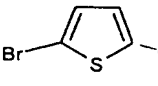
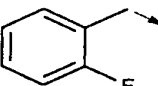
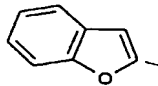
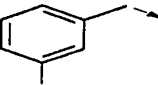
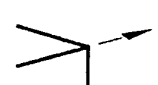
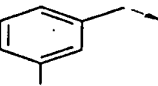
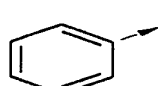
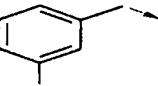
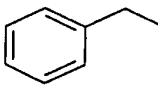
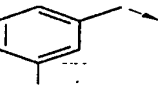
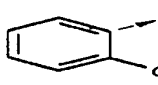
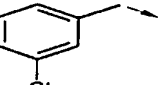
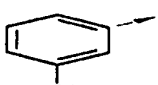
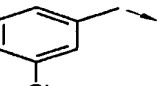
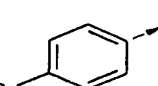
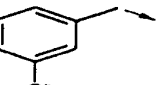
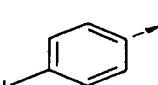
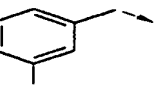
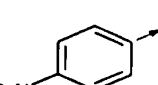
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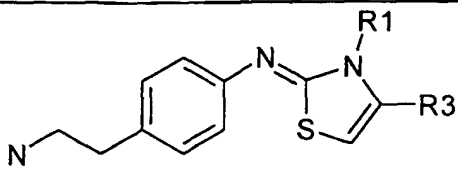
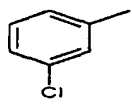
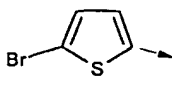
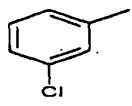
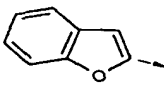
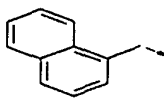

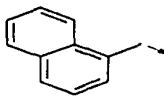
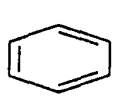
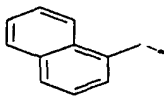
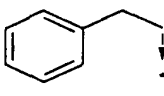
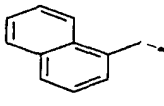
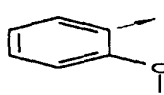
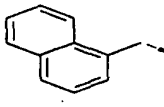
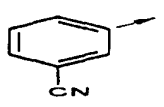
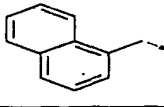
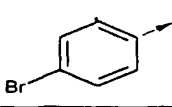
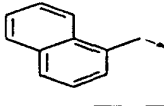
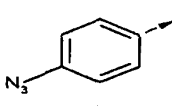
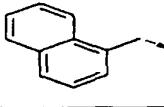
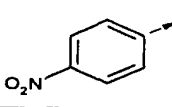
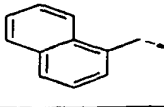
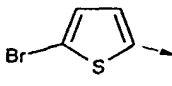
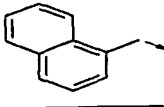
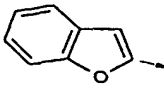
|  | | | | | |
|---|---|---|------------|-------------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 906 |  |  | 33 + 61 | 3,75 + 3,82 | 515,3 |
| 907 |  |  | 29 + 64 | 3,18 + 3,26 | 526,3 |
| 908 |  |  | 32 + 59 | 4 + 4,09 | 471,3 |
| 909 |  |  | 32 + 60 | 4,28 + 4,38 | 526,3 |
| 910 |  |  | 34 + 56 | 3,62 + 3,71 | 554,3 |
| 911 |  |  | 31 + 63 | 4,58 + 4,66 | 497,3 |

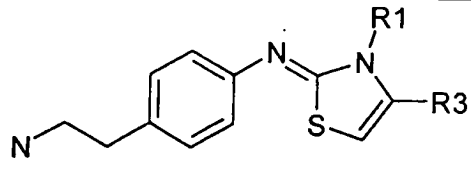
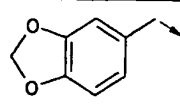

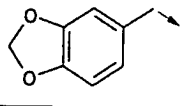
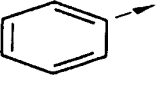
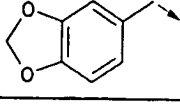
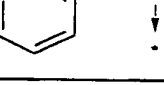
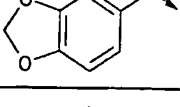
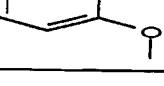
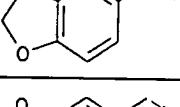
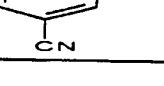
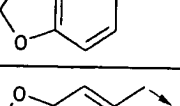
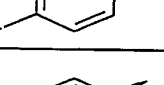
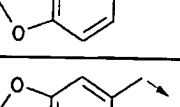
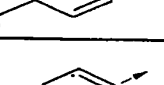
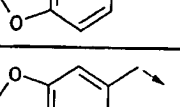

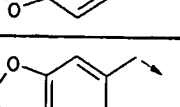
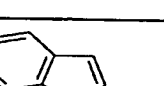
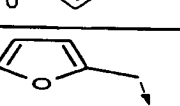

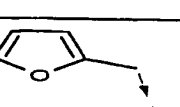
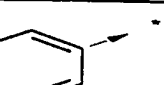


|  | | | | | |
|---|---|---|------------|------------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 912 |  |  | 6,8 + 91,2 | 3,6 + 3,76 | 332,22 |
| 913 |  |  | 88,1 | 3,94 | 352,19 |
| 914 |  |  | 89,6 | 4,22 | 380,22 |
| 915 |  |  | 61,6 | 3,95 | 382,17 |
| 916 |  |  | 83,5 | 3,8 | 377,19 |
| 917 |  |  | 84,2 | 4,41 | 430,10 |
| 918 |  |  | 70,9 | 4,24 | 393,18 |
| 919 |  |  | 84,1 | 4,1 | 397,16 |
| 920 |  |  | 82,2 | 4,55 | 436,05 |
| 921 |  |  | 82,8 | 4,66 | 392,17 |
| 922 |  |  | 98 | 4,25 | 380,22 |
| 923 |  |  | 91,1 | 4,26 | 400,17 |

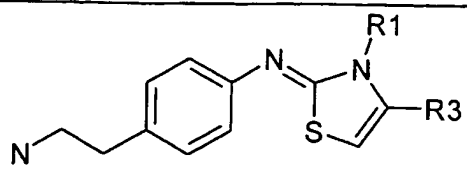
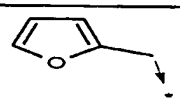
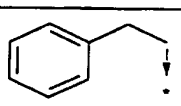
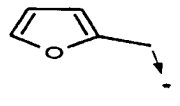
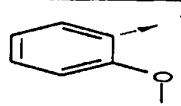
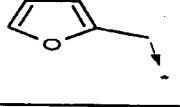
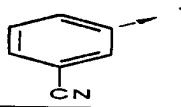
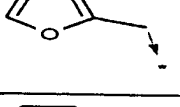
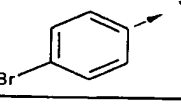

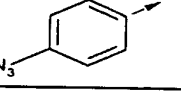
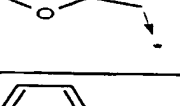
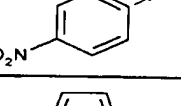
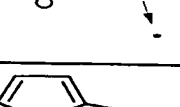
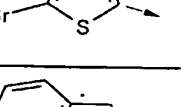
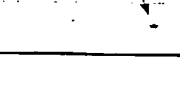
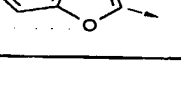
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 924 |  |  | 92,4 | 4,46 | 428,21 |
| 925 |  |  | 93,8 | 4,23 | 430,20 |
| 926 |  |  | 86,4 | 4,14 | 425,17 |
| 927 |  |  | 92,3 | 4,7 | 478,11 |
| 928 |  |  | 82 | 4,56 | 441,18 |
| 929 |  |  | 90,9 | 4,44 | 445,18 |
| 930 |  |  | 89,8 | 4,9 | 484,07 |
| 931 |  |  | 86,4 | 5,0 | 440,17 |
| 932 |  |  | 97,2 | 4,38 | 394,22 |
| 933 |  |  | 86,3 | 4,48 | 414,18 |
| 934 |  |  | 92,6 | 4,68 | 442,22 |
| 935 |  |  | 91 | 4,44 | 444,22 |

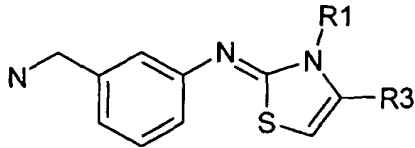
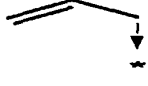
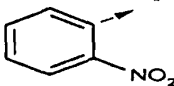
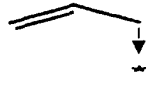
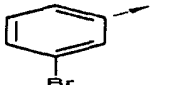
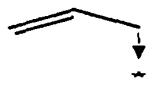
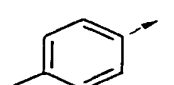
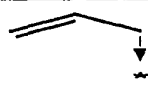
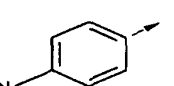
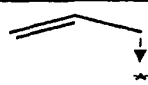
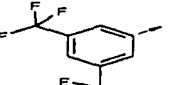
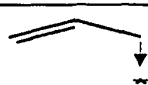
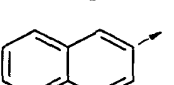

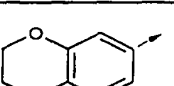
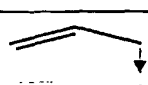
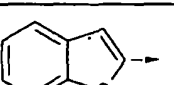
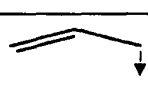
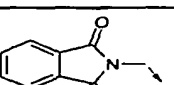

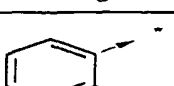

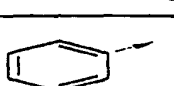
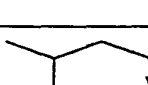
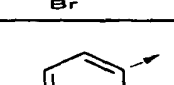
|  | | | | | |
|---|---|---|-------------|------------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 936 |  |  | 85,9 | 4,34 | 439,18 |
| 937 |  |  | 88,2 | 4,86 | 492,12 |
| 938 |  |  | 83,6 | 4,71 | 455,2 |
| 939 |  |  | 87,8 | 4,59 | 459,19 |
| 940 |  |  | 89,8 | 5,0 | 498,09 |
| 941 |  |  | 83,9 | 5,14 | 454,20 |
| 942 |  |  | 87,7 | 4,26 | 384,17 |
| 943 |  |  | 94,7 | 4,5 | 404,15 |
| 944 |  |  | 18,6 + 76,4 | 4,2 + 4,64 | 432,18 |
| 945 |  |  | 95,2 | 4,32 | 434,16 |
| 946 |  |  | 92 | 4,46 | 429,15 |
| 947 |  |  | 94,4 | 5,08 | 482,06 |

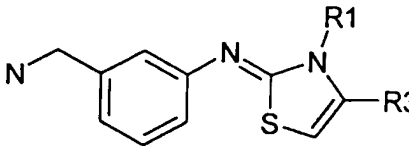
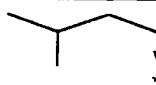
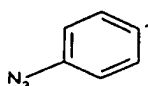
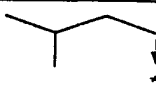
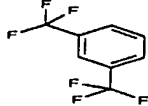
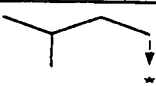
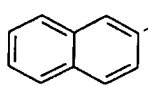
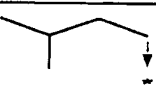
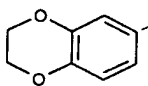
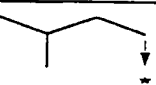
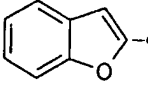
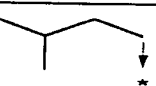
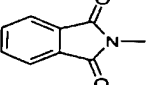
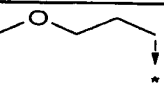
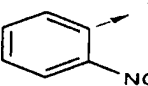
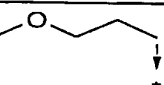
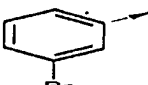
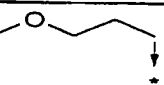
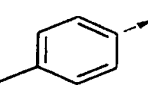
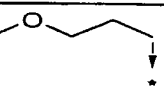
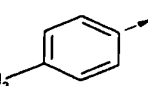
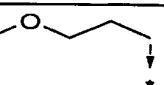
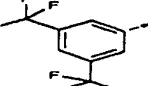
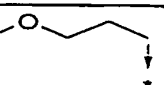
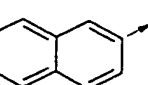
|  | | | | | |
|---|---|---|-------------|-------------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 948 |  |  | 93 | 4,86 | 445,16 |
| 949 |  |  | 94,2 | 4,82 | 449,13 |
| 950 |  |  | 93,1 | 5,34 | 488,03 |
| 951 |  |  | 93,7 | 5,47 | 444,16 |
| 952 |  |  | 91,5 | 4,43 | 400,13 |
| 953 |  |  | 95 | 4,82 | 420,12 |
| 954 |  |  | 14,8 + 81,2 | 4,38 + 4,88 | 448,15 |
| 955 |  |  | 95,8 | 4,64 | 450,13 |
| 956 |  |  | 95 | 4,79 | 445,11 |
| 957 |  |  | 95,4 | 5,4 | 498,06 |
| 958 |  |  | 93,9 | 5,14 | 461,12 |
| 959 |  |  | 94,5 | 5,12 | 465,10 |

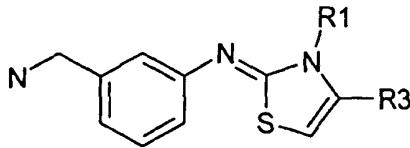
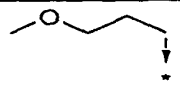
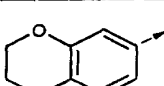
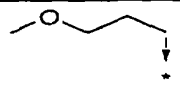
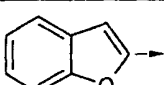
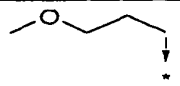
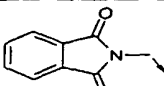
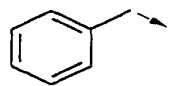
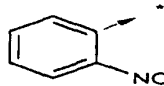
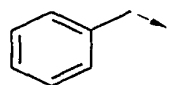
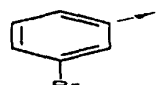
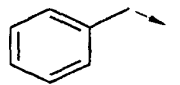
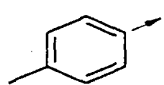
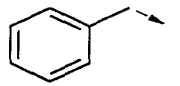
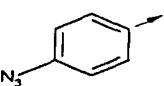
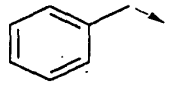
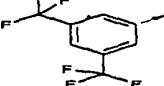
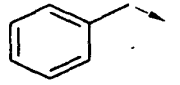
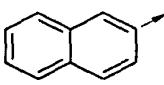
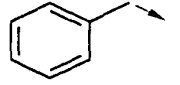
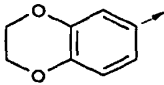
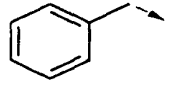
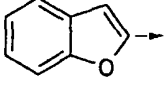
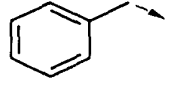
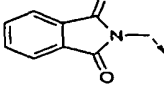
|  | | | | | |
|---|---|---|------------|------------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 960 |  |  | 94,6 | 5,62 | 504,00 |
| 961 |  |  | 96,4 | 5,74 | 460,13 |
| 962 |  |  | 6,5 + 87,5 | 4,2 + 4,54 | 416,19 |
| 963 |  |  | 92,9 | 4,76 | 436,17 |
| 964 |  |  | 17,3 + 6,2 | 4,5 + 4,9 | 464,21 |
| 965 |  |  | 92,6 | 4,64 | 466,17 |
| 966 |  |  | 89 | 4,76 | 461,16 |
| 967 |  |  | 94,1 | 5,32 | 514,09 |
| 968 |  |  | 92,1 | 5,09 | 477,19 |
| 969 |  |  | 90,5 | 5,1 | 481,16 |
| 970 |  |  | 92 | 5,56 | 520,02 |
| 971 |  |  | 93 | 5,72 | 476,17 |

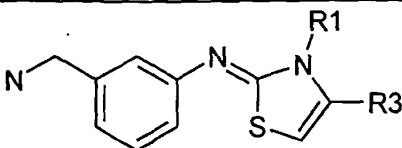
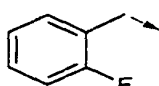
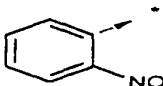
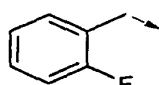
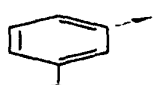
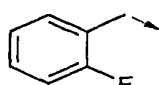
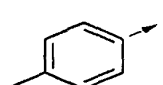
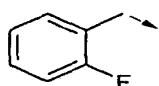
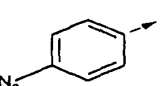
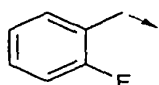
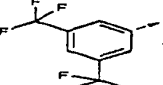
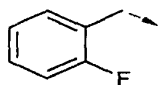
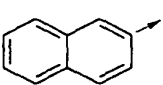
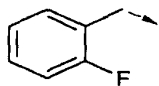
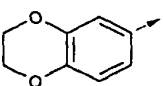
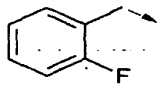
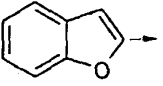
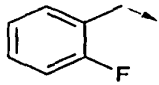
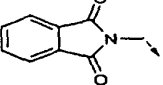
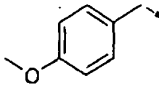
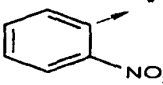
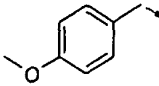
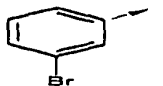
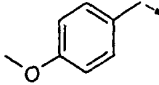
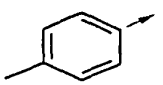
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 972 |  |  | 91,6 | 4 | 410,16 |
| 973 |  |  | 89,7 | 4,28 | 430,15 |
| 974 |  |  | 83,4 | 4,46 | 458,19 |
| 975 |  |  | 96,9 | 4,19 | 460,16 |
| 976 |  |  | 58,2 | 4,29 | 455,12 |
| 977 |  |  | 81,4 | 4,84 | 508,06 |
| 978 |  |  | 85,8 | 4,64 | 471,15 |
| 979 |  |  | 46,8 | 4,62 | 475,14 |
| 980 |  |  | 77,4 | 5,06 | 514,02 |
| 981 |  |  | 61,7 | 5,24 | 470,16 |
| 982 |  |  | 4,8 | 3,54 | 356,15 |
| 983 |  |  | 71,4 | 4,1 | 376,14 |

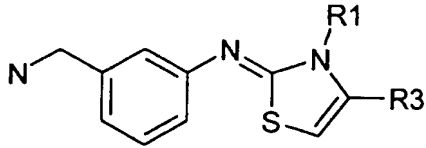
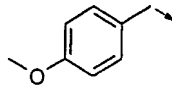
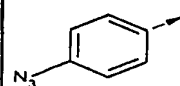
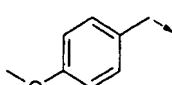
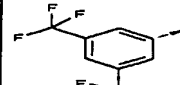
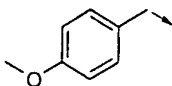
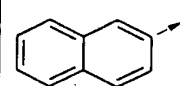
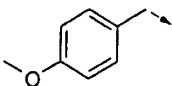
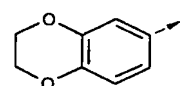
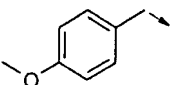
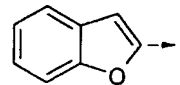
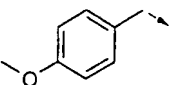
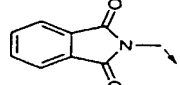
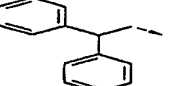
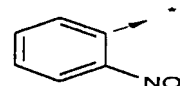
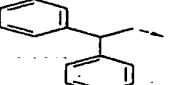
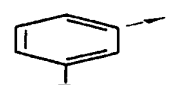
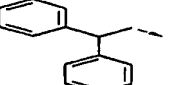
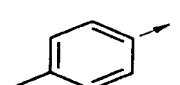
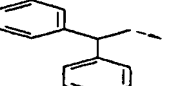
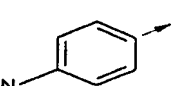
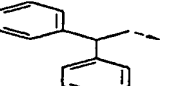
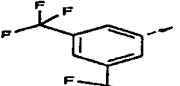
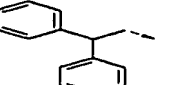
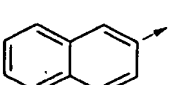
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 984 |  |  | 79 | 4,3 | 404,17 |
| 985 |  |  | 88,3 | 4,0 | 406,13 |
| 986 |  |  | 12,2 | 5,32 | 401,11 |
| 987 |  |  | 46,5 | 4,72 | 454,04 |
| 988 |  |  | 56,3 | 4,49 | 417,15 |
| 989 |  |  | 13,8 | 5,52 | 421,12 |
| 990 |  |  | 35,3 | 4,95 | 460,02 |
| 991 |  |  | 9,1 | 5,71 | 416,11 |

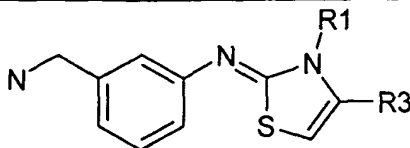
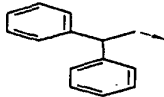
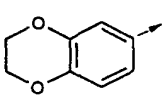
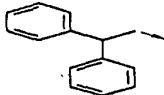
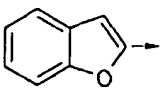
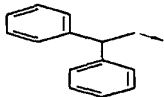
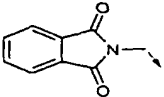
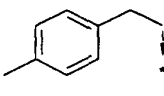
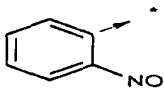
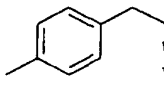
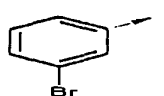
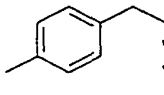
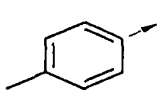
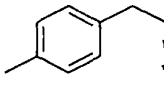
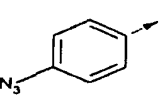
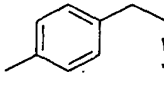
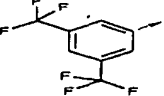
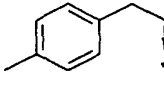
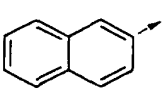
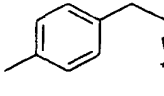
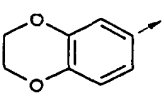
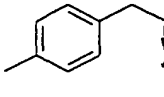
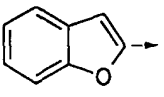
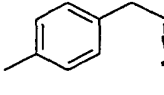
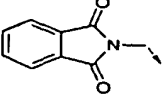
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 992 |  |  | 95,3 | 3,33 | 367,12 |
| 993 |  |  | 91,9 | 3,97 | 400,03 |
| 994 |  |  | 92,5 | 3,64 | 336,17 |
| 995 |  |  | 83,7 | 3,75 | 363,13 |
| 996 |  |  | 94,7 | 4,88 | 458,11 |
| 997 |  |  | 93,1 | 4,03 | 372,14 |
| 998 |  |  | 92,6 | 3,37 | 380,14 |
| 999 |  |  | 92,1 | 4,36 | 362,12 |
| 1000 |  |  | 91 | 3,32 | 405,11 |
| 1001 |  |  | 87,8 | 3,9 | 397,14 |
| 1002 |  |  | 64,2 | 4,46 | 430,09 |
| 1003 |  |  | 61,6 | 4,18 | 366,23 |

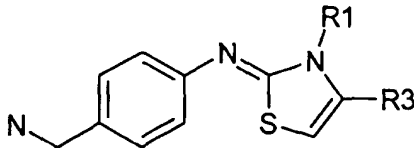
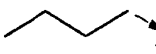
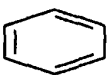
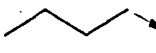
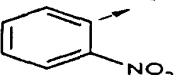
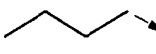

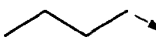
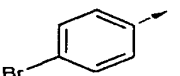
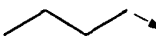
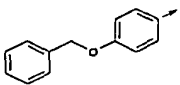

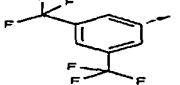
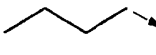
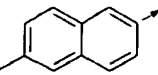

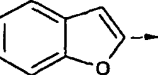
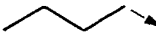
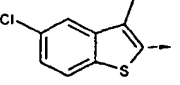

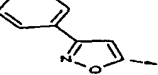

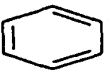

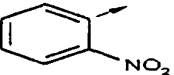
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1004 |  |  | 45,6 | 4,26 | 393,16 |
| 1005 |  |  | 72,4 | 5,28 | 488,17 |
| 1006 |  |  | 67 | 4,47 | 402,17 |
| 1007 |  |  | 51,1 | 3,86 | 410,16 |
| 1008 |  |  | 57,6 | 4,86 | 392,16 |
| 1009 |  |  | 75,1 | 3,92 | 435,16 |
| 1010 |  |  | 90,7 | 3,24 | 399,13 |
| 1011 |  |  | 79,6 | 3,79 | 432,06 |
| 1012 |  |  | 74,5 | 3,55 | 368,16 |
| 1013 |  |  | 58,8 | 3,62 | 395,15 |
| 1014 |  |  | 81 | 4,65 | 490,15 |
| 1015 |  |  | 86,8 | 3,88 | 404,17 |

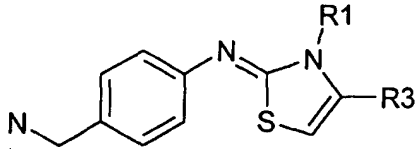
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1016 |  |  | 71,4 | 3,3 | 412,13 |
| 1017 |  |  | 73,7 | 4,13 | 394,15 |
| 1018 |  |  | 80,5 | 3,3 | 437,15 |
| 1019 |  |  | 94,6 | 4,19 | 417,10 |
| 1020 |  |  | 94,8 | 4,76 | 450,07 |
| 1021 |  |  | 92,9 | 4,42 | 386,13 |
| 1022 |  |  | 88,8 | 4,56 | 413,11 |
| 1023 |  |  | 94,1 | 5,48 | 508,13 |
| 1024 |  |  | 93,8 | 4,79 | 422,13 |
| 1025 |  |  | 92,3 | 4,04 | 430,15 |
| 1026 |  |  | 90 | 5,08 | 412,10 |
| 1027 |  |  | 93,2 | 3,95 | 455,13 |

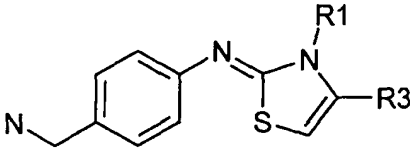
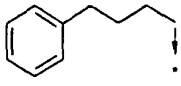
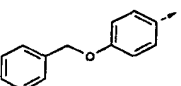
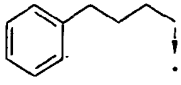
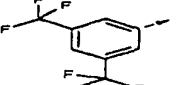
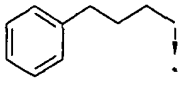
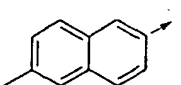
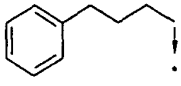
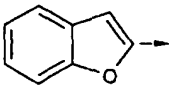
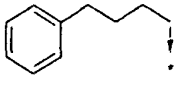
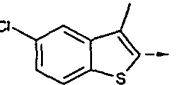
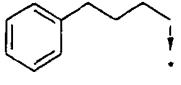
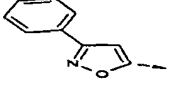
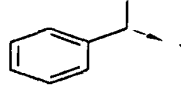
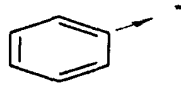
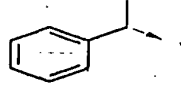
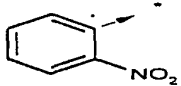
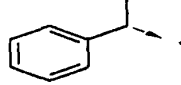
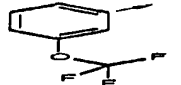
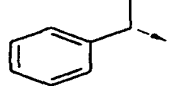
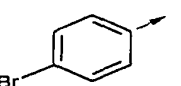
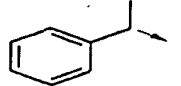
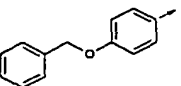
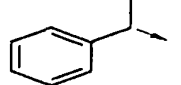
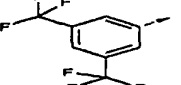
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1028 |  |  | 92,6 | 4,3 | 435,1 |
| 1029 |  |  | 92,8 | 4,9 | 470,1 |
| 1030 |  |  | 89,2 | 4,6 | 404,1 |
| 1031 |  |  | 89,2 | 4,76 | 431,1 |
| 1032 |  |  | 94,3 | 5,6 | 526,1 |
| 1033 |  |  | 93,5 | 5 | 440,2 |
| 1034 |  |  | 92,4 | 4,2 | 448,1 |
| 1035 |  |  | 87,9 | 5,2 | 430,1 |
| 1036 |  |  | 93,6 | 4,1 | 473,2 |
| 1037 |  |  | 80,4 | 4,16 | 447,14 |
| 1038 |  |  | 72,7 | 4,72 | 480,08 |
| 1039 |  |  | 77 | 4,39 | 416,14 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1040 |  |  | 59,2 | 4,5 | 443,16 |
| 1041 |  |  | 16,8 | 5,98 | 538,12 |
| 1042 |  |  | 59,5 | 4,74 | 452,16 |
| 1043 |  |  | 74 | 4,02 | 460,16 |
| 1044 |  |  | 26,3 | 5,52 | 442,13 |
| 1045 |  |  | 91 | 3,82 | 485,17 |
| 1046 |  |  | 89,8 | 5,09 | 507,19 |
| 1047 |  |  | 84,5 | 5,52 | 540,09 |
| 1048 |  |  | 86 | 5,06 | 476,21 |
| 1049 |  |  | 75,6 | 5,22 | 503,21 |
| 1050 |  |  | 90,3 | 6,14 | 598,15 |
| 1051 |  |  | 85,9 | 5,38 | 512,22 |

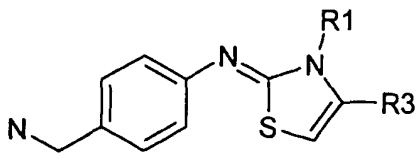
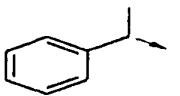
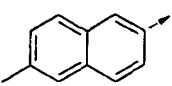
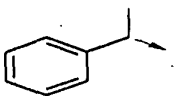
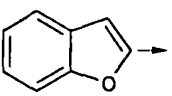
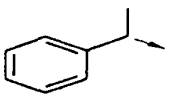
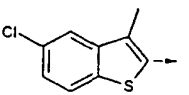
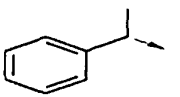
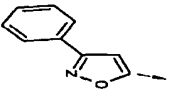
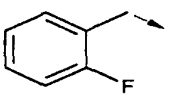
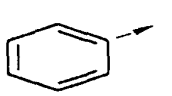
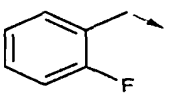
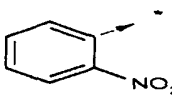
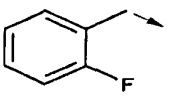
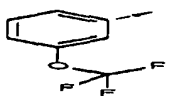
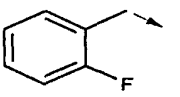
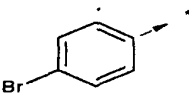
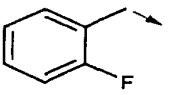
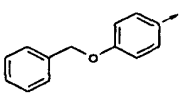
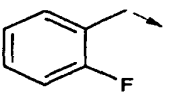
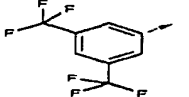
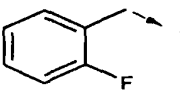
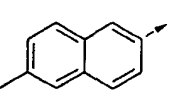
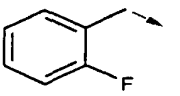
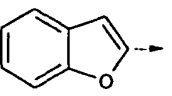
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1052 |  |  | 81,3 | 4,68 | 520,19 |
| 1053 |  |  | 83,3 | 5,66 | 502,20 |
| 1054 |  |  | 82 | 4,92 | 545,17 |
| 1055 |  |  | 93,1 | 4,34 | 445,16 |
| 1056 |  |  | 81,5 | 4,77 | 478,10 |
| 1057 |  |  | 79,9 | 4,46 | 414,17 |
| 1058 |  |  | 70,2 | 4,56 | 441,15 |
| 1059 |  |  | 85,8 | 5,56 | 536,11 |
| 1060 |  |  | 84,1 | 4,73 | 450,19 |
| 1061 |  |  | 78,4 | 4,12 | 458,20 |
| 1062 |  |  | 83,3 | 5,13 | 440,16 |
| 1063 |  |  | 83,1 | 4,22 | |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1064 |  |  | 86,6 | 3,52 | 338,12 |
| 1065 |  |  | 90,4 | 3,44 | 383,09 |
| 1066 |  |  | 87,3 | 4,25 | 422,10 |
| 1067 |  |  | 85,9 | 4,04 | 416,04 |
| 1068 |  |  | 70,5 | 4,4 | 444,18 |
| 1069 |  |  | 80,1 | 4,83 | 474,13 |
| 1070 |  |  | 80,6 | 4,34 | 402,16 |
| 1071 |  |  | 80,8 | 4,37 | 378,14 |
| 1072 |  |  | 86,5 | 4,77 | 442,06 |
| 1073 |  |  | 83,4 | 4,72 | 405,12 |
| 1074 |  |  | 90,5 | 3,02 | 340,15 |
| 1075 |  |  | 93,5 | 2,98 | 385,10 |

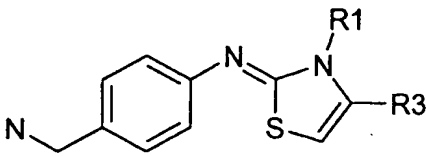
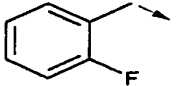
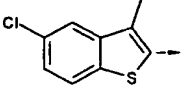
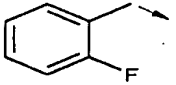
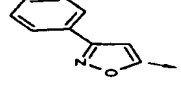
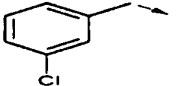
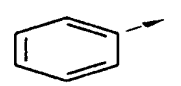
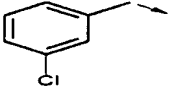
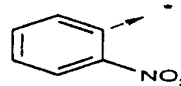
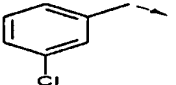

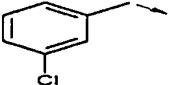
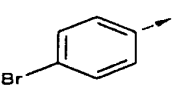
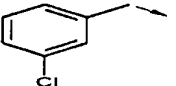
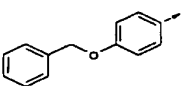
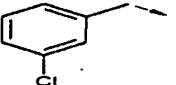
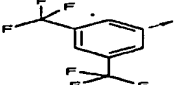
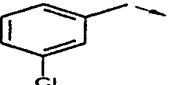
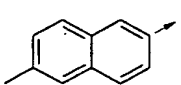
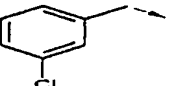
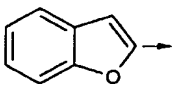
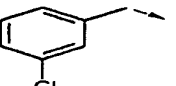
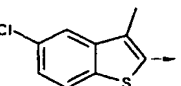
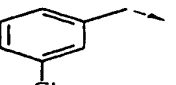
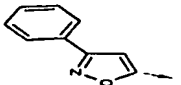
|  | | | | | |
|---|----|----|------------|-----------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1076 | | | 91,7 | 3,9 | 424,12 |
| 1077 | | | 90,8 | 3,62 | 418,04 |
| 1078 | | | 80,8 | 4,09 | 446,18 |
| 1079 | | | 88,1 | 4,6 | 476,12 |
| 1080 | | | 91,5 | 3,98 | 404,16 |
| 1081 | | | 89,2 | 3,87 | 380,13 |
| 1082 | | | 87,3 | 4,36 | 444,10 |
| 1083 | | | 90,6 | 4,24 | 407,13 |
| 1084 | | | 86,4 | 4,24 | 414,15 |
| 1085 | | | 91,8 | 4,21 | 459,17 |
| 1086 | | | 88,2 | 4,89 | 498,19 |
| 1087 | | | 85,8 | 4,71 | 492,12 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1088 |  |  | 76,1 | 4,9 | 520,21 |
| 1089 |  |  | 83,3 | 5,45 | 550,17 |
| 1090 |  |  | 84,9 | 4,9 | 478,24 |
| 1091 |  |  | 86,1 | 5,08 | 454,19 |
| 1092 |  |  | 78 | 5,38 | 518,14 |
| 1093 |  |  | 84,5 | 5,38 | 481,21 |
| 1094 |  |  | 37,5 | 3,36 | 386,14 |
| 1095 |  |  | 57,1 | 3,35 | 431,14 |
| 1096 |  |  | 44 | 3,78 | 470,17 |
| 1097 |  |  | 42 | 3,62 | 464,09 |
| 1098 |  |  | 38,8 | 4,14 | 492,21 |
| 1099 |  |  | 45,2 | 3,98 | 522,14 |

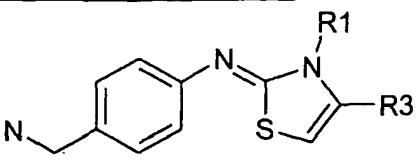
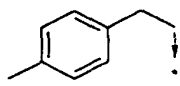
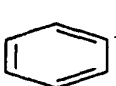
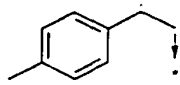
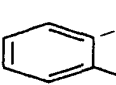
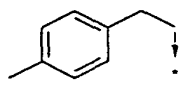

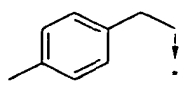
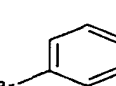
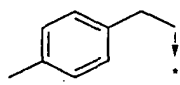
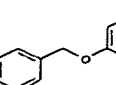
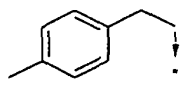
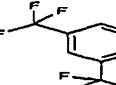
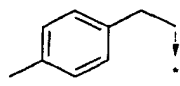
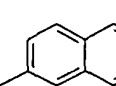
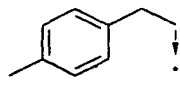
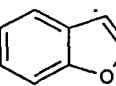
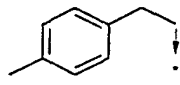
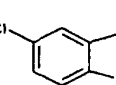
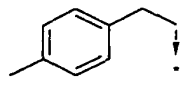
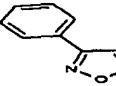
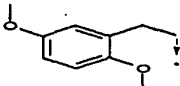
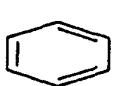
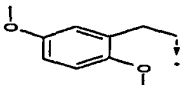
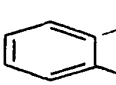
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|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1100 |  |  | 33,4 | 3,99 | 450,20 |
| 1101 |  |  | 44,7 | 3,68 | 426,14 |
| 1102 |  |  | 33,4 | 4,08 | 490,12 |
| 1103 |  |  | 42,4 | 3,67 | 453,17 |
| 1104 |  |  | 92,6 | 4,23 | 390,14 |
| 1105 |  |  | 91,9 | 4,1 | 439,1 |
| 1106 |  |  | 92,1 | 5 | 474,13 |
| 1107 |  |  | 93 | 4,85 | 468,04 |
| 1108 |  |  | 86,5 | 5,04 | 496,18 |
| 1109 |  |  | 92,8 | 5,5 | 526,13 |
| 1110 |  |  | 92,8 | 5,1 | 454,17 |
| 1111 |  |  | 92 | 5,1 | 430,10 |

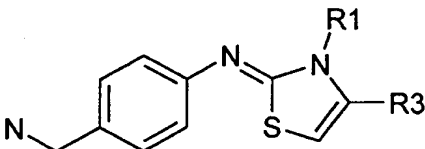
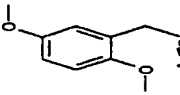
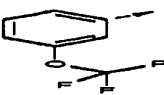
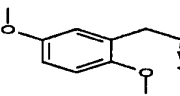
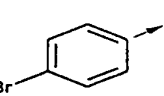
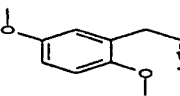
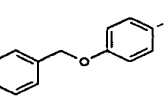
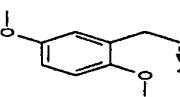
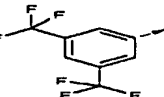
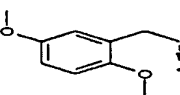
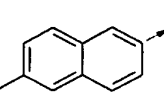
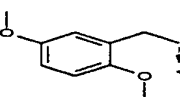
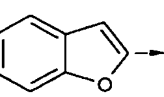
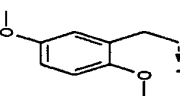
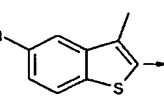
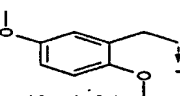
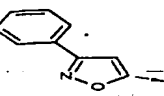
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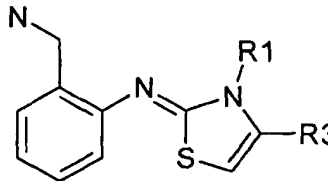
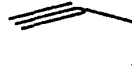
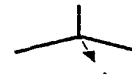
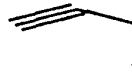
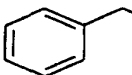
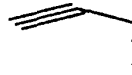
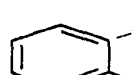
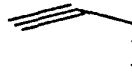
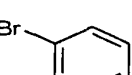
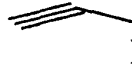
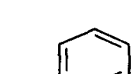
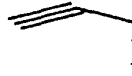
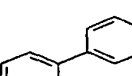
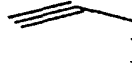
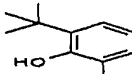
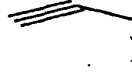
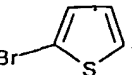
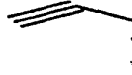
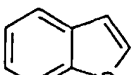
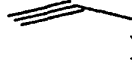
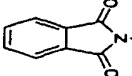
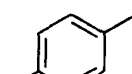
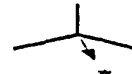
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|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1112 |  |  | 92,8 | 5,48 | 494,08 |
| 1113 |  |  | 92,8 | 5,1 | 457,18 |
| 1114 |  |  | 93,8 | 4,6 | 406,10 |
| 1115 |  |  | 93,6 | 4,5 | 451,03 |
| 1116 |  |  | 93,1 | 5,2 | 490,10 |
| 1117 |  |  | 94,5 | 5,1 | 483,99 |
| 1118 |  |  | 89,54 | 5,29 | 512,13 |
| 1119 |  |  | 95,2 | 5,6 | 542,1 |
| 1120 |  |  | 92,8 | 5,38 | 470,15 |
| 1121 |  |  | 93,4 | 5,3 | 445,94 |
| 1122 |  |  | 94,7 | 5,7 | 510,05 |
| 1123 |  |  | 94,3 | 5,3 | 473,04 |

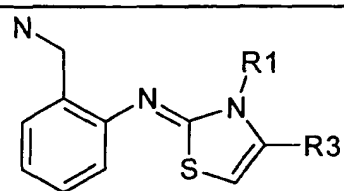
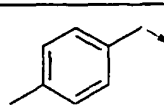
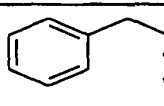
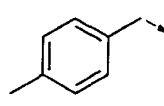
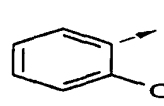
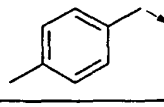
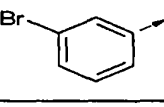
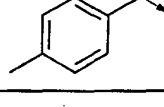
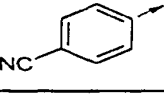
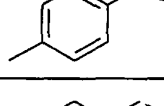
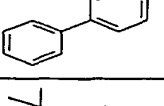
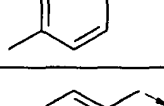
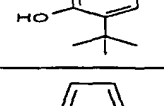
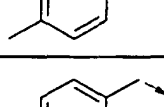
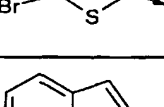
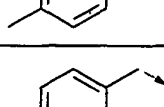
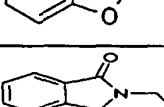
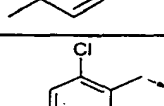
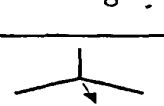
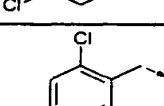
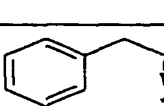
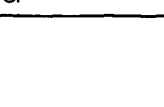
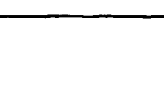
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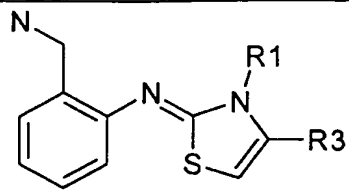
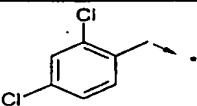
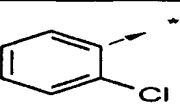
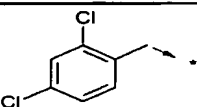
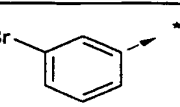
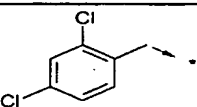
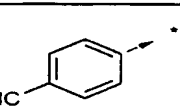
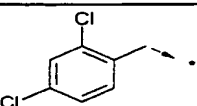
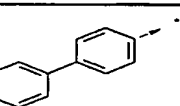
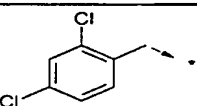
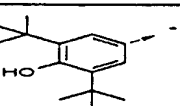
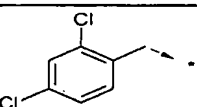
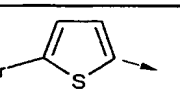
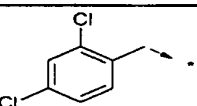
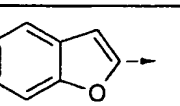
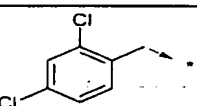
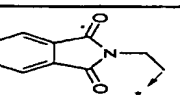
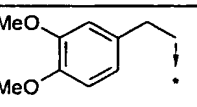
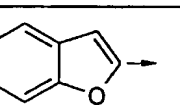
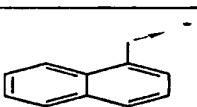
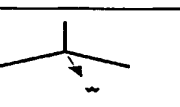
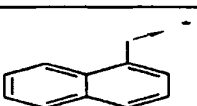
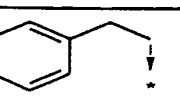
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1124 |  |  | 89,5 | 4,06 | 400,12 |
| 1125 |  |  | 92,1 | 4,13 | 445,13 |
| 1126 |  |  | 88,9 | 4,81 | 484,15 |
| 1127 |  |  | 88,8 | 4,56 | 478,09 |
| 1128 |  |  | 82,4 | 4,76 | 506,20 |
| 1129 |  |  | 88,6 | 5,36 | 536,12 |
| 1130 |  |  | 85,7 | 4,78 | 464,18 |
| 1131 |  |  | 84 | 4,94 | 440,15 |
| 1132 |  |  | 64,3 | 5,38 | 504,10 |
| 1133 |  |  | 88,4 | 5,16 | 467,17 |
| 1134 |  |  | 82,7 | 3,76 | 446,16 |
| 1135 |  |  | 89 | 3,77 | 491,14 |

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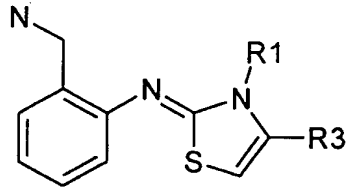
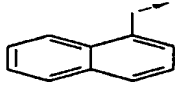
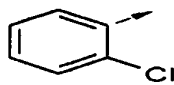
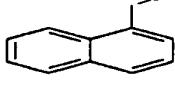
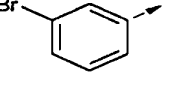
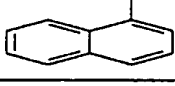
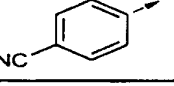
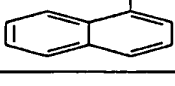
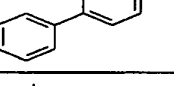
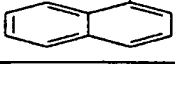
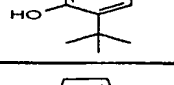
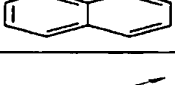
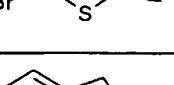
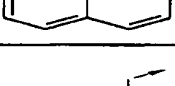
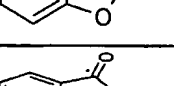
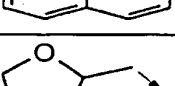
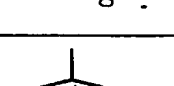
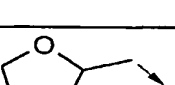
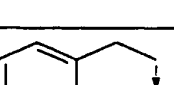

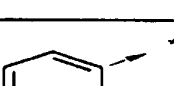


|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1136 |  |  | 87,1 | 4,4 | 530,13 |
| 1137 |  |  | 84,6 | 4,21 | 524,08 |
| 1138 |  |  | 76 | 4,52 | 552,19 |
| 1139 |  |  | 85,6 | 4,98 | 582,12 |
| 1140 |  |  | 83,1 | 4,44 | 510,21 |
| 1141 |  |  | 88,3 | 4,6 | 486,19 |
| 1142 |  |  | 1,5 | 5,07 | 550,12 |
| 1143 |  |  | 84 | 4,75 | 513,16 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1144 |  |  | 75 | 4,48 | 300,16 |
| 1145 |  |  | 82 | 4,89 | 348,16 |
| 1146 |  |  | 86,7 | 4,72 | 354,09 |
| 1147 |  |  | 89 | 4,96 | 398,01 |
| 1148 |  |  | 87 | 4,37 | 345,18 |
| 1149 |  |  | 90 | 5,4 | 396,1 |
| 1150 |  |  | 89 | 5,9 | 448,2 |
| 1151 |  |  | 85 | 5 | 404 |
| 1152 |  |  | 85 | 4,96 | 360,10 |
| 1153 |  |  | 91 | 4,39 | 417,14 |
| 1154 |  |  | 95 | 5,14 | 366,21 |

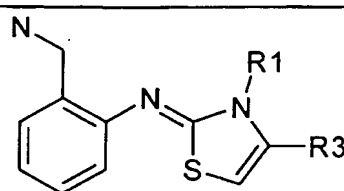
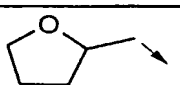
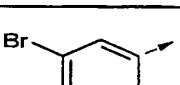
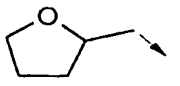
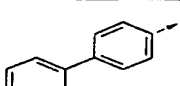
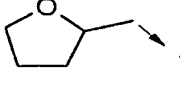
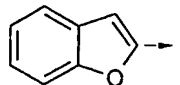
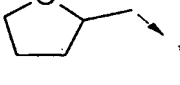
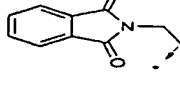
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1155 |  |  | 92 | 5,52 | 414,17 |
| 1156 |  |  | 95 | 5,37 | 420,13 |
| 1157 |  |  | 93 | 5,6 | 464,08 |
| 1158 |  |  | 94 | 5 | 411,2 |
| 1159 |  |  | 91 | 6,04 | 462,19 |
| 1160 |  |  | 91,5 | 6,4 | 514,2 |
| 1161 |  |  | 92,6 | 5,7 | 470,1 |
| 1162 |  |  | 93,8 | 5,6 | 426,14 |
| 1163 |  |  | 91,4 | 5,02 | 483,21 |
| 1164 |  |  | 96,3 | 5,55 | 420,10 |
| 1165 |  |  | 78,2 | 5,81 | 468,10 |

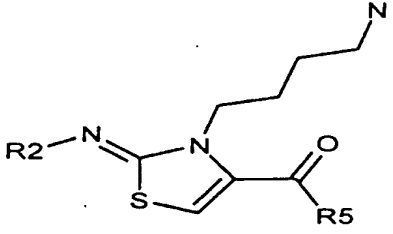
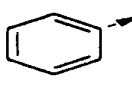
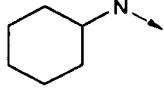
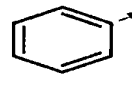
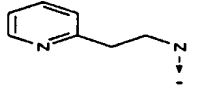
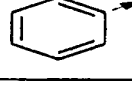
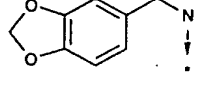
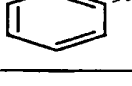
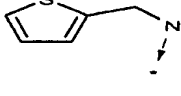
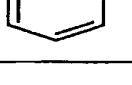
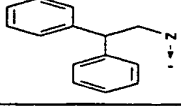
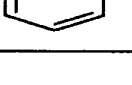
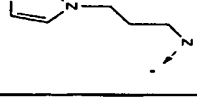
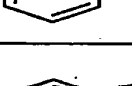
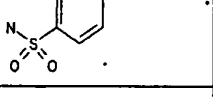
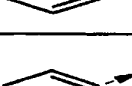
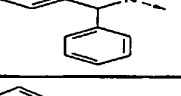
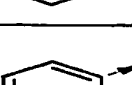
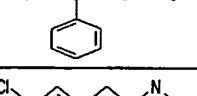
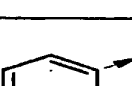
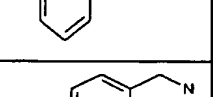

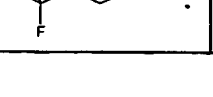
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1166 |  |  | 96,7 | 5,6 | 474,06 |
| 1167 |  |  | 96,9 | 5,8 | 517,97 |
| 1168 |  |  | 94,2 | 5,18 | 465,06 |
| 1169 |  |  | 94 | 6,25 | 516,10 |
| 1170 |  |  | 96,4 | 6,52 | 568,2 |
| 1171 |  |  | 94,6 | 5,9 | 524,0 |
| 1172 |  |  | 94,9 | 5,81 | 480,07 |
| 1173 |  |  | 91,9 | 5,25 | 537,09 |
| 1174 |  |  | 77,4 | 5,24 | 486,16 |
| 1175 |  |  | 96,8 | 5,36 | 402,15 |
| 1176 |  |  | 92,4 | 5,66 | 450,19 |

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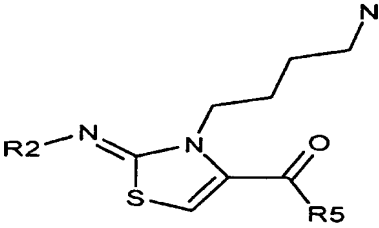
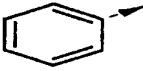
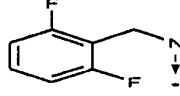
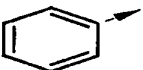
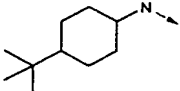
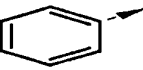
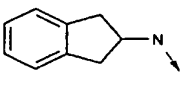
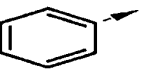
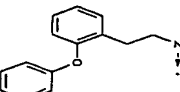
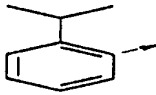
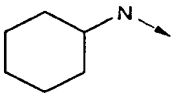
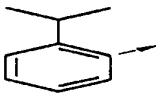
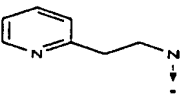
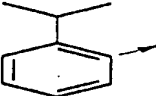
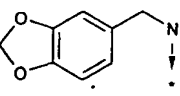
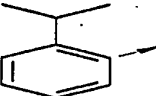
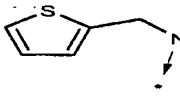
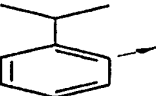
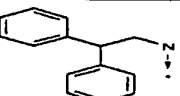
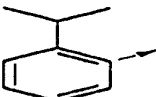
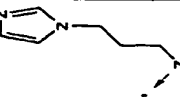
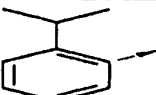
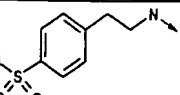
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1177 |  |  | 93,3 | 5,48 | 456,12 |
| 1178 |  |  | 93,3 | 5,7 | 500,08 |
| 1179 |  |  | 90,7 | 5,12 | 447,15 |
| 1180 |  |  | 91,9 | 6,12 | 498,21 |
| 1181 |  |  | 95,1 | 6,5 | 550,3 |
| 1182 |  |  | 92,8 | 5,7 | 506,0 |
| 1183 |  |  | 94,9 | 5,74 | 462,15 |
| 1184 |  |  | 91,4 | 5,13 | 519,17 |
| 1185 |  |  | 73,6 | 3,52 | 346,19 |
| 1186 |  |  | 71,5 | 4,5 | 394,17 |
| 1187 |  |  | 82,2 | 4,58 | 400,10 |

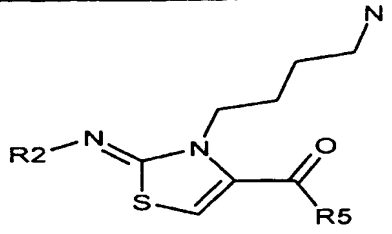
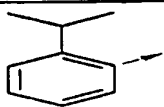
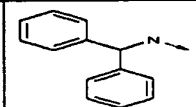
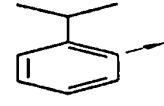
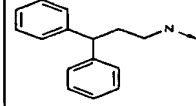
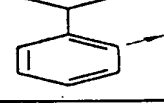
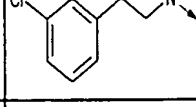
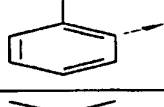
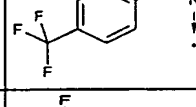
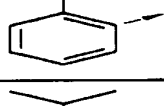
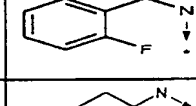
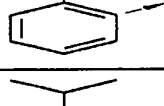
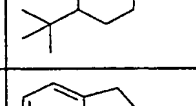
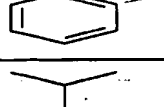
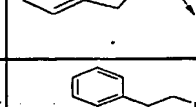
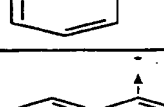
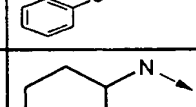
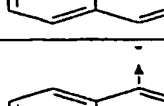
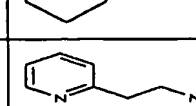
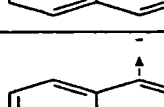
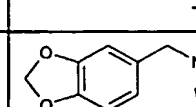
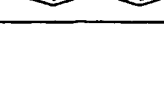

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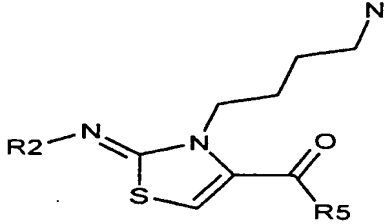
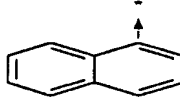
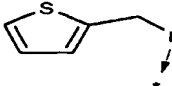
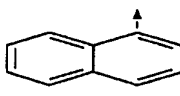
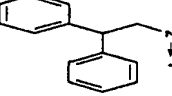
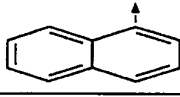
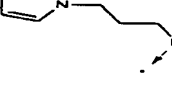
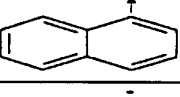
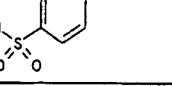
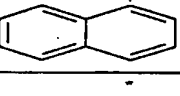
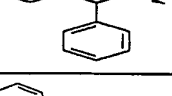
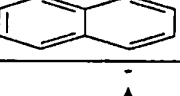
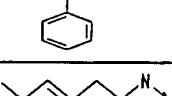
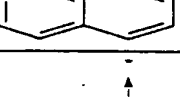
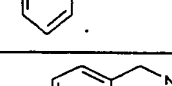
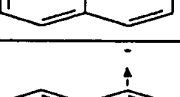

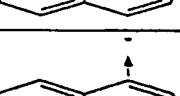
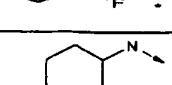
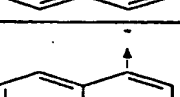
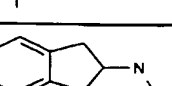
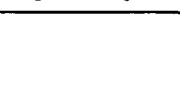
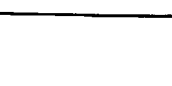
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|---|--|--|------------|-----------|--------------------|
| Ex. | R1 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1188 |  |  | 78,6 | 4,86 | 444,09 |
| 1189 |  |  | 70,5 | 5,3 | 442,17 |
| 1190 |  |  | 76,8 | 5 | 406,13 |
| 1191 |  |  | 80,5 | 4,1 | 463,19 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1192 |  |  | 28,3 | 3,61 | 373,15 |
| 1193 |  |  | 64,3 | 2,55 | 396,15 |
| 1194 |  |  | 66,8 | 3,58 | 425,13 |
| 1195 |  |  | 51,9 | 3,47 | 387,07 |
| 1196 |  |  | 75,8 | 4,43 | 471,21 |
| 1197 |  |  | 66,4 | 2,38 | 399,15 |
| 1198 |  |  | 42,6 | 3,11 | 474,14 |
| 1199 |  |  | 45,3 | 4,39 | 457,18 |
| 1200 |  |  | 64 | 4,62 | 485,21 |
| 1201 |  |  | 55,1 | 4,09 | 429,12 |
| 1202 |  |  | 75 | 4,22 | 449,13 |

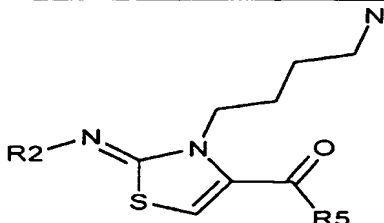
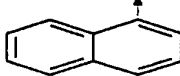
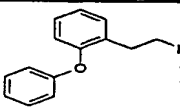
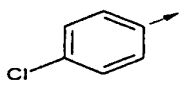
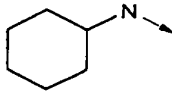
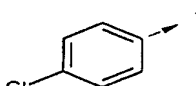
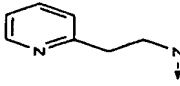
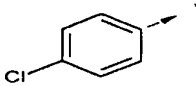
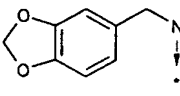
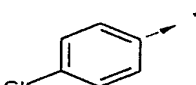
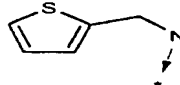
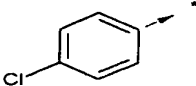
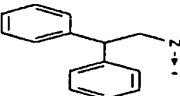
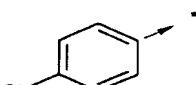
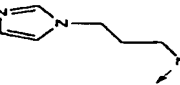
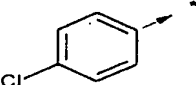
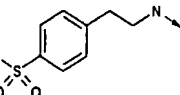
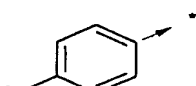
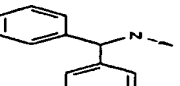
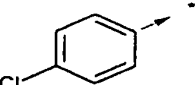
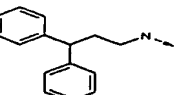
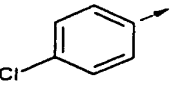
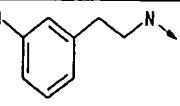
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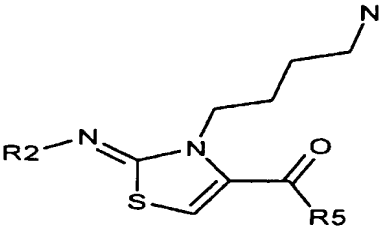
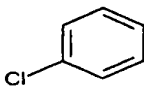
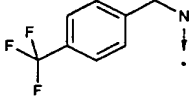
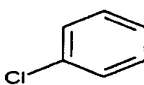
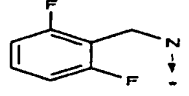
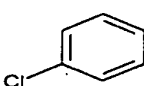
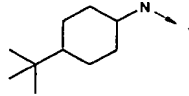
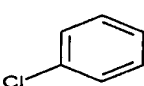
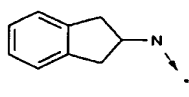
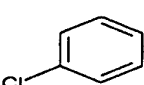
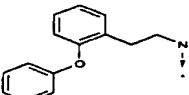
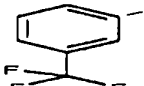
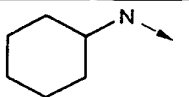
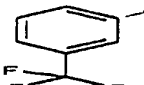
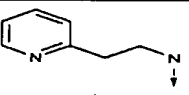
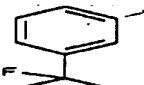
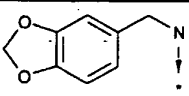
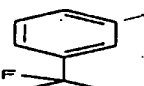
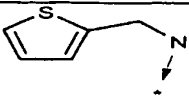
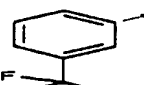
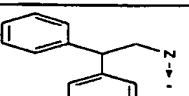
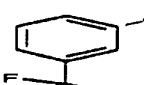
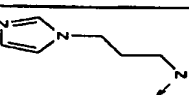
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|---|---|---|-------------|------------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1203 |  |  | 67,9 | 3,64 | 417,11 |
| 1204 |  |  | 31,7 + 17,3 | 4,65 + 4,8 | 429,24 |
| 1205 |  |  | 41,8 | 3,86 | 407,14 |
| 1206 |  |  | 67,8 | 4,58 | 487,20 |
| 1207 |  |  | 33,2 | 4,31 | 415,20 |
| 1208 |  |  | 60,9 | 3,29 | 438,21 |
| 1209 |  |  | 58 | 4,29 | 467,18 |
| 1210 |  |  | 51,9 | 4,21 | 429,15 |
| 1211 |  |  | 70 | 5,03 | 513,24 |
| 1212 |  |  | 22,9 | 3,17 | 441,19 |
| 1213 |  |  | 71,8 | 3,81 | 516,16 |

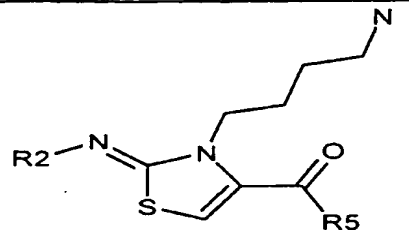
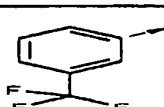
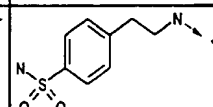
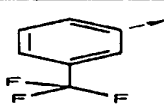
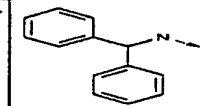
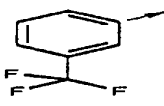
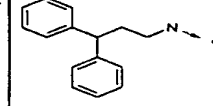
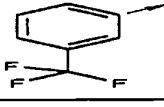
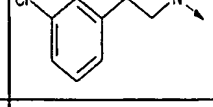
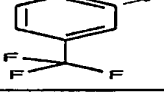
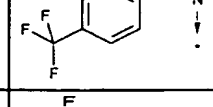
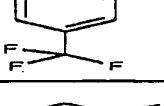
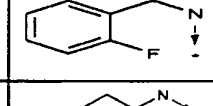
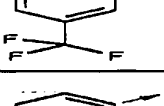
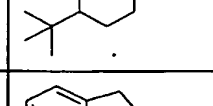
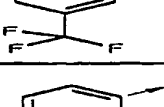
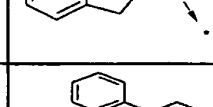
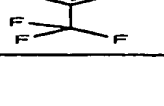
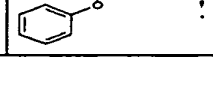
|  | | | | | |
|---|---|---|-------------|------------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1214 |  |  | 35,4 | 5,03 | 499,23 |
| 1215 |  |  | 64 | 5,18 | 527,25 |
| 1216 |  |  | 68,2 | 4,71 | 471,19 |
| 1217 |  |  | 76,5 | 4,84 | 491,18 |
| 1218 |  |  | 67,6 | 4,35 | 459,16 |
| 1219 |  |  | 28,7 + 14,2 | 5,27 + 5,4 | 471,30 |
| 1220 |  |  | 66,9 | 4,52 | 449,21 |
| 1221 |  |  | 64,1 | 5,17 | 529,21 |
| 1222 |  |  | 49,7 | 4,55 | 423,19 |
| 1223 |  |  | 78,8 | 3,41 | 446,17 |
| 1224 |  |  | 76,2 | 4,48 | 475,15 |

|  | | | | | |
|---|---|---|------------|------------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1225 |  |  | 68,3 | 4,42 | 437,12 |
| 1226 |  |  | 79,6 | 5,24 | 521,17 |
| 1227 |  |  | 49,1 | 3,29 | 449,20 |
| 1228 |  |  | 72,2 | 4 | 524,15 |
| 1229 |  |  | 69,7 | 5,22 | 507,20 |
| 1230 |  |  | 75 | 5,42 | 535,20 |
| 1231 |  |  | 78 | 4,93 | 479,13 |
| 1232 |  |  | 79,1 | 5,04 | 499,16 |
| 1233 |  |  | 82,6 | 4,56 | 467,13 |
| 1234 |  |  | 45 + 24,6 | 5,53 + 5,7 | 479,26 |
| 1235 |  |  | 77 | 4,75 | 457,18 |

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|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1236 |  |  | 70,4 | 5,41 | 537,18 |
| 1237 |  |  | 47,7 | 4,38 | 407,12 |
| 1238 |  |  | 71,3 | 3,27 | 430,12 |
| 1239 |  |  | 70,2 | 4,35 | 459,10 |
| 1240 |  |  | 68,1 | 4,27 | 421,06 |
| 1241 |  |  | 78,8 | 5,13 | 505,13 |
| 1242 |  |  | 24 | 3,17 | 433,11 |
| 1243 |  |  | 74,2 | 3,86 | 508,08 |
| 1244 |  |  | 43 | 5,16 | 491,08 |
| 1245 |  |  | 71,8 | 5,38 | 519,12 |
| 1246 |  |  | 69,9 | 4,85 | 463,05 |

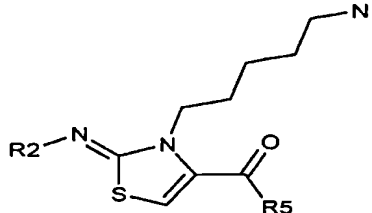
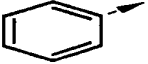
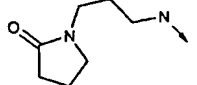
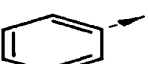
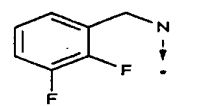
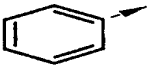
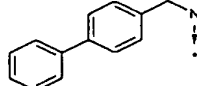
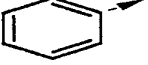
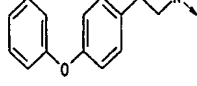

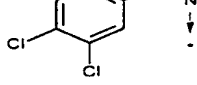
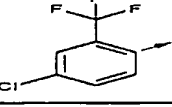
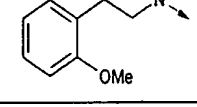
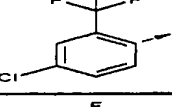
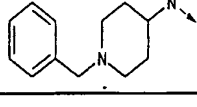
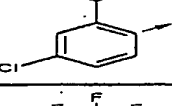
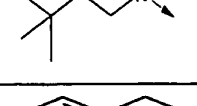
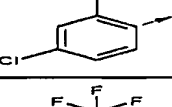
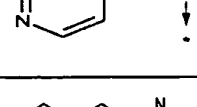
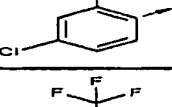
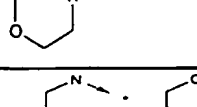
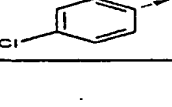
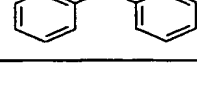
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|---|---|---|-------------|------------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1247 |  |  | 79,2 | 4,96 | 483,10 |
| 1248 |  |  | 77,9 | 4,45 | 451,07 |
| 1249 |  |  | 42,6 + 23,5 | 5,42 + 5,6 | 463,20 |
| 1250 |  |  | 70 | 4,65 | 441,11 |
| 1251 |  |  | 72 | 5,36 | 521,12 |
| 1252 |  |  | 28,2 | 4,96 | 441,14 |
| 1253 |  |  | 65,8 | 3,69 | 464,14 |
| 1254 |  |  | 51 | 4,86 | 493,14 |
| 1255 |  |  | 64,5 | 4,79 | 455,08 |
| 1256 |  |  | 72,2 | 5,55 | 539,16 |
| 1257 |  |  | 27,2 | 3,59 | 467,16 |

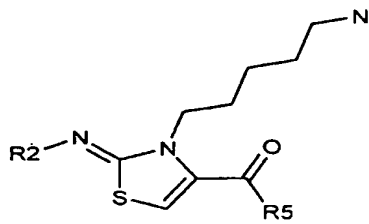
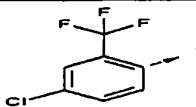
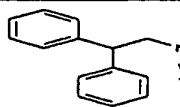
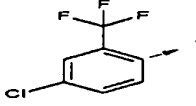
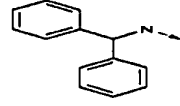
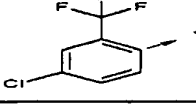
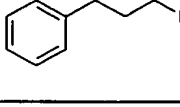
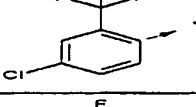
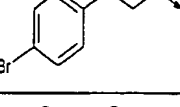
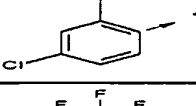
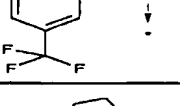
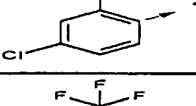
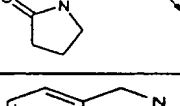
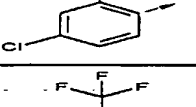
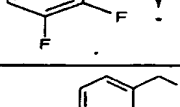
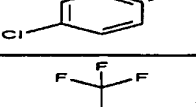
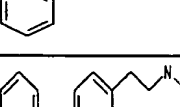
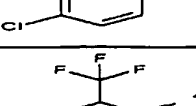
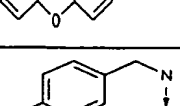
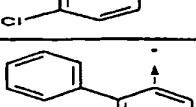
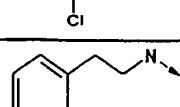
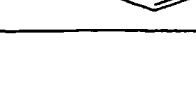
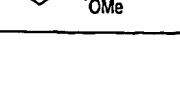
|  | | | | | |
|---|---|---|-------------|------------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1258 |  |  | 38,6 | 4,38 | 542,12 |
| 1259 |  |  | 49,4 | 5,53 | 525,16 |
| 1260 |  |  | 60,6 | 5,73 | 553,20 |
| 1261 |  |  | 67,7 | 5,27 | 497,13 |
| 1262 |  |  | 80,8 | 5,34 | 517,12 |
| 1263 |  |  | 78 | 4,92 | 485,13 |
| 1264 |  |  | 28,5 + 14,4 | 5,87 + 6,0 | 497,26 |
| 1265 |  |  | 60,5 | 5,13 | 475,16 |
| 1266 |  |  | 65,7 | 5,73 | 555,14 |

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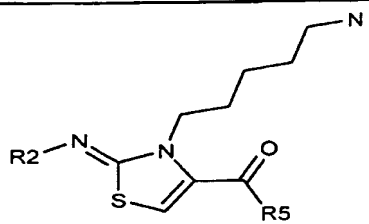
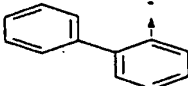
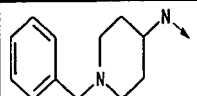
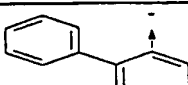
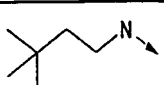
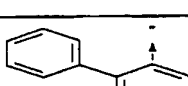
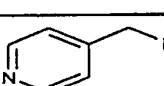
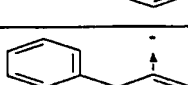
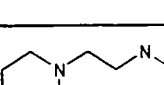

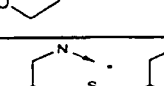
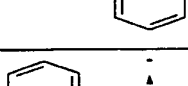
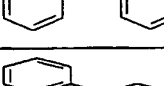
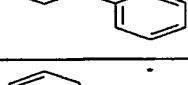
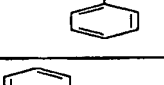
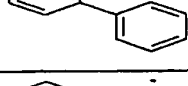
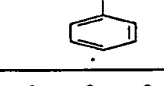
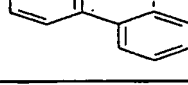
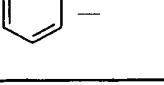
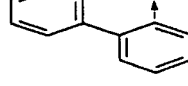
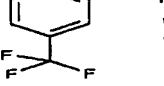
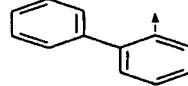
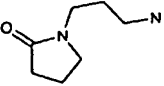
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
|------|----|----|------------|-----------|--------------------|
| 1267 | | | 60 | 3,86 | 439,18 |
| 1268 | | | 88,1 | 2,89 | 478,24 |
| 1269 | | | 89,1 | 3,83 | 389,20 |
| 1270 | | | 94,3 | 2,41 | 396,14 |
| 1271 | | | 94 | 2,33 | 418,20 |
| 1272 | | | 80,3 | 4,05 | 533,17 |
| 1273 | | | 93 | 4,33 | 485,23 |
| 1274 | | | 90,5 | 4,27 | 471,22 |
| 1275 | | | 82,4 | 3,94 | 423,20 |
| 1276 | | | 92,8 | 4,07 | 487,10 |
| 1277 | | | 92,3 | 4,09 | 463,16 |

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|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1278 |  |  | 90,6 | 2,9 | 430,20 |
| 1279 |  |  | 94,7 | 3,69 | 431,14 |
| 1280 |  |  | 90,6 | 4,37 | 471,21 |
| 1281 |  |  | 86,4 | 4,51 | 501,20 |
| 1282 |  |  | 93,1 | 4,16 | 463,09 |
| 1283 |  |  | 63,6 | 5,58 | 541,11 |
| 1284 |  |  | 82,4 | 4,23 | 580,17 |
| 1285 |  |  | 87,6 | 5,63 | 491,16 |
| 1286 |  |  | 91,5 | 4,03 | 498,13 |
| 1287 |  |  | 89,5 | 3,91 | 520,13 |
| 1288 |  |  | 82,2 | 5,61 | 635,14 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1289 |  |  | 92,3 | 5,9 | 587,14 |
| 1290 |  |  | 89,9 | 5,86 | 573,11 |
| 1291 |  |  | 90 | 5,66 | 525,14 |
| 1292 |  |  | 90,9 | 5,73 | 589,02 |
| 1293 |  |  | 91,2 | 5,69 | 565,07 |
| 1294 |  |  | 89,4 | 4,72 | 532,13 |
| 1295 |  |  | 93,3 | 5,44 | 533,08 |
| 1296 |  |  | 93,1 | 5,95 | 573,11 |
| 1297 |  |  | 90,1 | 6,06 | 603,16 |
| 1298 |  |  | 90,3 | 5,79 | 565,00 |
| 1299 |  |  | 63,6 | 4,65 | 515,20 |

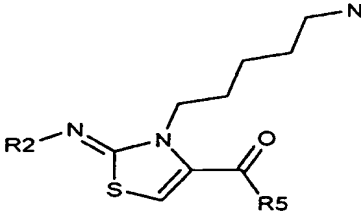
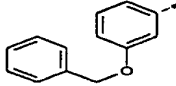
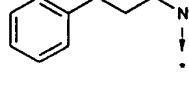
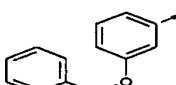
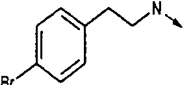
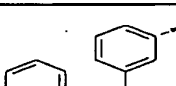
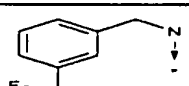
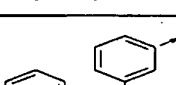
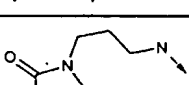
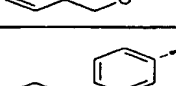
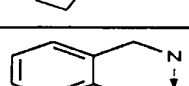
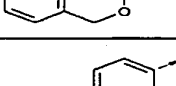
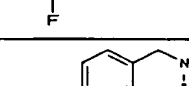
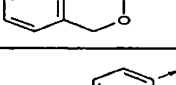
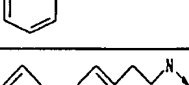
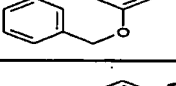
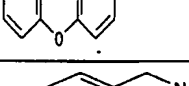
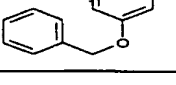
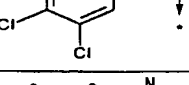
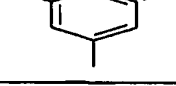
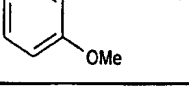
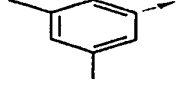
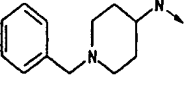
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|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1300 |  |  | 82,9 | 3,63 | 554,24 |
| 1301 |  |  | 85,9 | 4,67 | 465,23 |
| 1302 |  |  | 85,4 | 3,41 | 472,20 |
| 1303 |  |  | 83,7 | 3,31 | 494,23 |
| 1304 |  |  | 84,2 | 4,79 | 609,20 |
| 1305 |  |  | 86,5 | 5,11 | 561,20 |
| 1306 |  |  | 84,2 | 5,11 | 547,19 |
| 1307 |  |  | 84,8 | 4,75 | 499,23 |
| 1308 |  |  | 89 | 4,89 | 539,15 |
| 1309 |  |  | 85,9 | 3,76 | 506,23 |
| 1310 |  |  | 88,5 | 4,59 | 507,17 |

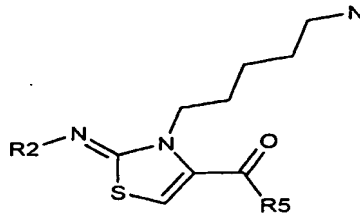
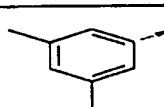
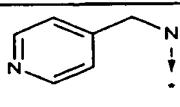
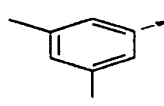
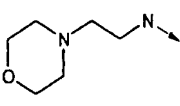
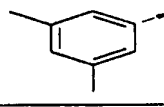
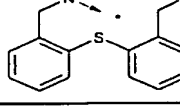
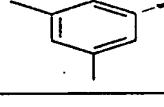
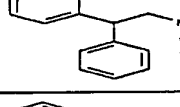
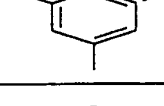
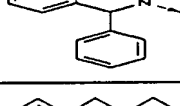
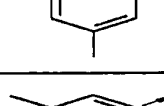
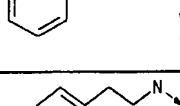
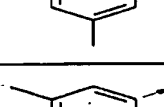
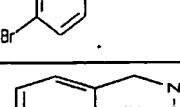
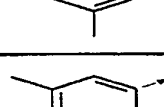
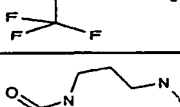
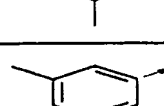
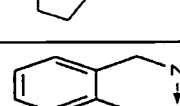
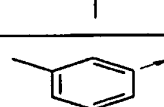
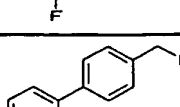
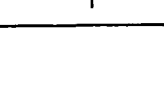

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| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
|------|----|----|------------|-----------|--------------------|
| 1311 | | | 87,8 | 5,16 | 547,20 |
| 1312 | | | 1,5 | 5,6 | 577,22 |
| 1313 | | | 89,7 | 4,99 | 539,10 |
| 1314 | | | 65,3 | 4,81 | 545,20 |
| 1315 | | | 86,7 | 3,82 | 584,25 |
| 1316 | | | 87,6 | 4,81 | 495,24 |
| 1317 | | | 91 | 3,63 | 502,20 |
| 1318 | | | 90,2 | 3,54 | 524,24 |
| 1319 | | | 85,4 | 4,91 | 639,22 |
| 1320 | | | 85,7 | 5,21 | 591,23 |
| 1321 | | | 90 | 5,19 | 577,22 |

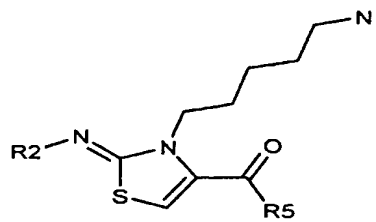
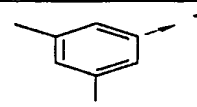
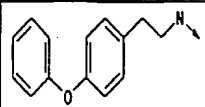
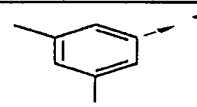
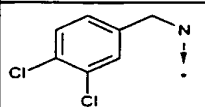
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|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1322 |  |  | 87,9 | 4,87 | 529,22 |
| 1323 |  |  | 86,4 | 5 | 593,12 |
| 1324 |  |  | 87,5 | 5,01 | 569,16 |
| 1325 |  |  | 89,7 | 4 | 536,23 |
| 1326 |  |  | 89,6 | 4,73 | 537,18 |
| 1327 |  |  | 89,6 | 5,24 | 577,24 |
| 1328 |  |  | 86,7 | 5,33 | 607,24 |
| 1329 |  |  | 90,6 | 5,1 | 569,10 |
| 1330 |  |  | 62,1 | 4,17 | 467,23 |
| 1331 |  |  | 92,8 | 3,23 | 506,28 |
| 1332 |  |  | 81,3 | 4,14 | 417,24 |

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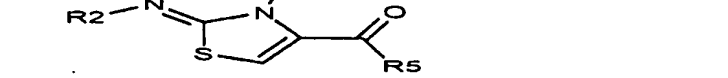
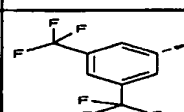
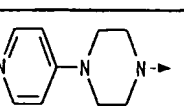
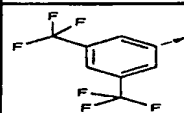
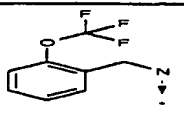
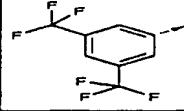
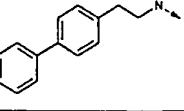
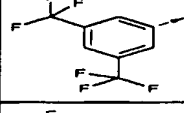
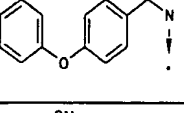
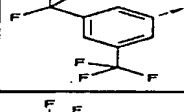
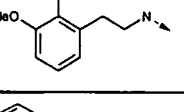
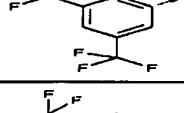
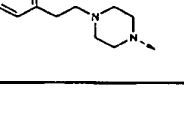
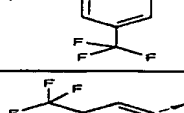
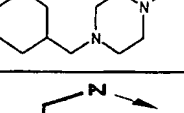
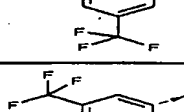
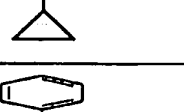
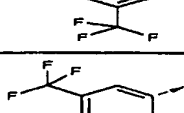

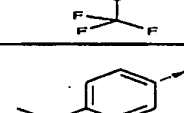
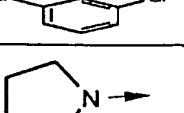


|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1333 |  |  | 91,9 | 2,95 | 424,19 |
| 1334 |  |  | 91,8 | 2,87 | 446,24 |
| 1335 |  |  | 78,7 | 4,31 | 561,19 |
| 1336 |  |  | 89,5 | 4,58 | 513,25 |
| 1337 |  |  | 91,3 | 4,54 | 499,24 |
| 1338 |  |  | 80,3 | 4,24 | 451,23 |
| 1339 |  |  | 77,6 | 4,37 | 515,12 |
| 1340 |  |  | 85,7 | 4,37 | 491,18 |
| 1341 |  |  | 92,3 | 3,34 | 458,25 |
| 1342 |  |  | 90,8 | 4,05 | 459,19 |
| 1343 |  |  | 79,9 | 4,63 | 499,25 |

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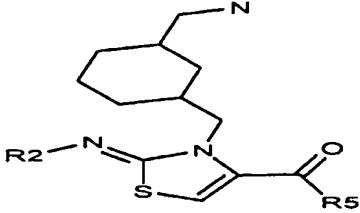
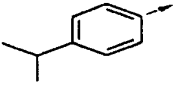
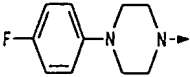
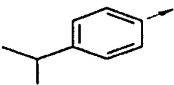
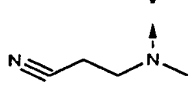
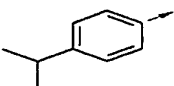
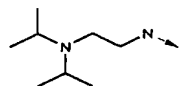
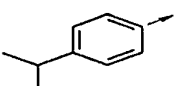
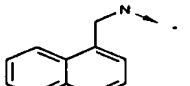
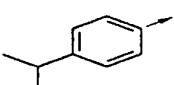
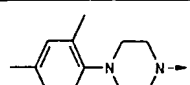
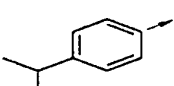
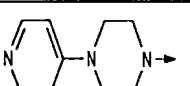
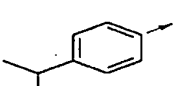
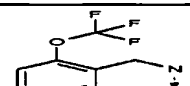
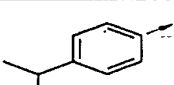
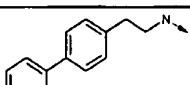
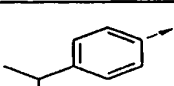
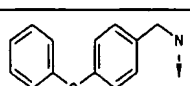
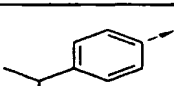
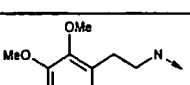
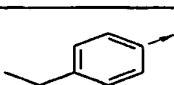
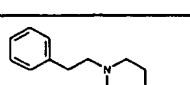
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|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1344 |  |  | 76,6 | 4,75 | 529,24 |
| 1345 |  |  | 91,9 | 4,45 | 491,13 |

| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
|------|----|----|-------------|------------|--------------------|
| 1346 | | | 56,9 + 24,5 | 4,07 + 4,2 | 417,23 |
| 1347 | | | 64,6 + 24,4 | 4,98 + 5,1 | 526,30 |
| 1348 | | | 62,4 + 25,1 | 3,96 + 4,1 | 430,25 |
| 1349 | | | 80,5 | 3,44 | 490,37 |
| 1350 | | | 65,4 + 27,8 | 4,9 + 5,0 | 503,31 |
| 1351 | | | 64,5 + 25,5 | 5,6 + 5,7 | 536,35 |
| 1352 | | | 86,8 | 3,3 | 509,30 |
| 1353 | | | 64,1 + 29,8 | 5,02 + 5,1 | 537,26 |
| 1354 | | | 60,8 + 32,2 | 5,37 + 5,5 | 543,32 |
| 1355 | | | 59,6 + 31,5 | 5,24 + 5,3 | 545,30 |
| 1356 | | | 61,6 + 24,8 | 4,69 + 4,8 | 527,31 |

| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
|------|----|----|-------------|------------|--------------------|
| 1357 | | | 88,7 | 3,8 | 536,36 |
| 1358 | | | 87,5 | 3,8 | 528,38 |
| 1359 | | | 58 + 25,2 | 4,12 + 4,3 | 417,27 |
| 1360 | | | 68,1 + 24,5 | 5,22 + 5,3 | 529,31 |
| 1361 | | | 64,8 + 23,1 | 5,12 + 5,2 | 535,19 |
| 1362 | | | 61,9 + 21,6 | 5,46 + 5,5 | 535,23 |
| 1363 | | | 90,4 | 6,06 | 644,33 |
| 1364 | | | 89,7 | 5,31 | 548,24 |
| 1365 | | | 84,3 | 4,5 | 608,34 |
| 1366 | | | 95,2 | 6,06 | 621,27 |
| 1367 | | | 90,9 | 6,6 | 654,4 |

|  | | | | | |
|--|---|---|------------|------------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1368 |  |  | 84,2 | 4,41 | 627,29 |
| 1369 |  |  | 92,8 | 6,12 | 655,27 |
| 1370 |  |  | 91,9 | 6,4 | 661,33 |
| 1371 |  |  | 93,2 | 6,3 | 663,32 |
| 1372 |  |  | 87,3 | 5,9 | 645,32 |
| 1373 |  |  | 87,5 | 4,7 | 654,4 |
| 1374 |  |  | 84,8 | 4,7 | 646,38 |
| 1375 |  |  | 71,8 | 5,53 | 535,23 |
| 1376 |  |  | 94,2 | 6,28 | 647,32 |
| 1377 |  |  | 91,6 | 6,25 | 653,22 |
| 1378 |  |  | 63 + 26,1 | 3,98 + 4,2 | 441,30 |

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|  | | | | | |
|---|---|---|-------------|------------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1379 |  |  | 64,5 + 28 | 4,8 + 5,0 | 550,36 |
| 1380 |  |  | 65,1 + 26,9 | 3,93 + 4,1 | 454,30 |
| 1381 |  |  | 56,6 + 30,1 | 3,54 + 3,6 | 514,40 |
| 1382 |  |  | 64,8 + 30,3 | 4,64 + 4,9 | 527,34 |
| 1383 |  |  | 64,3 + 28,3 | 5,33 + 5,6 | 560,39 |
| 1384 |  |  | 64,5 + 24,8 | 3,5 + 3,6 | 533,35 |
| 1385 |  |  | 62,9 + 27,5 | 4,77 + 5,0 | 561,29 |
| 1386 |  |  | 48,5 + 20,8 | 5,08 + 5,3 | 567,36 |
| 1387 |  |  | 61,2 + 27,5 | 4,98 + 5,2 | 569,33 |
| 1388 |  |  | 58,4 + 22,7 | 4,5 + 4,7 | 551,36 |
| 1389 |  |  | 65,1 + 26,4 | 3,92 + 4,0 | 560,38 |

| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
|------|----|----|-------------|------------|--------------------|
| 1390 | | | 63,6 + 26,1 | 3,92 + 4,1 | 552,43 |
| 1391 | | | 64 + 27,3 | 4,01 + 4,2 | 441,30 |
| 1392 | | | 66,2 + 28,9 | 4,96 + 5,2 | 553,35 |
| 1393 | | | 62,8 + 26,6 | 4,84 + 5,0 | 559,23 |
| 1394 | | | 59,4 + 26,3 | 3,95 + 4,1 | 445,26 |
| 1395 | | | 63,7 + 28,7 | 4,89 + 5,1 | 554,28 |
| 1396 | | | 62 + 27,9 | 3,9 + 4,1 | 458,27 |
| 1397 | | | 58,9 + 28,7 | 3,48 + 3,5 | 518,35 |
| 1398 | | | 62,9 + 29,3 | 4,75 + 5,0 | 531,28 |
| 1399 | | | 63,2 + 28,4 | 5,46 + 5,7 | 564,32 |
| 1400 | | | 58,3 + 30,4 | 3,39 + 3,5 | 537,30 |

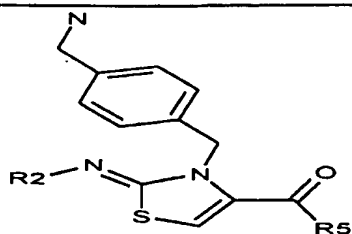
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
|------|----|----|-------------|------------|--------------------|
| 1401 | | | 61,8 + 28,3 | 4,88 + 5,0 | 565,23 |
| 1402 | | | 61,5 + 27,9 | 5,2 + 5,4 | 571,28 |
| 1403 | | | 62,2 + 29,5 | 5,09 + 5,3 | 573,28 |
| 1404 | | | 60,6 + 26,7 | 4,54 + 4,7 | 555,30 |
| 1405 | | | 59,2 + 31,8 | 3,86 + 4,0 | 564,32 |
| 1406 | | | 59,3 + 31,2 | 3,86 + 4,0 | 556,37 |
| 1407 | | | 49,3 + 21,7 | 4 + 4,2 | 445,26 |
| 1408 | | | 64,4 + 29,7 | 5,07 + 5,3 | 557,28 |
| 1409 | | | 61,7 + 27,9 | 4,96 + 5,1 | 563,20 |
| 1410 | | | 62,4 + 25,4 | 5,24 + 5,4 | 552,27 |
| 1411 | | | 63,6 + 28,1 | 5,91 + 6,0 | 661,33 |

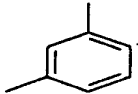
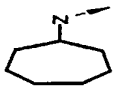
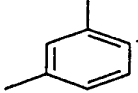
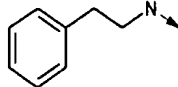
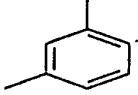
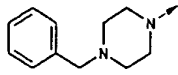
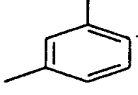
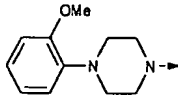
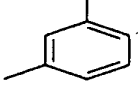
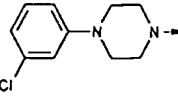
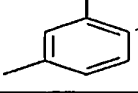
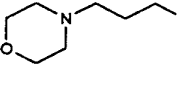
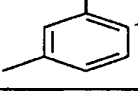
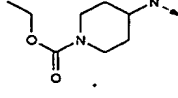
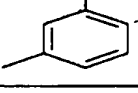
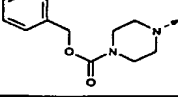
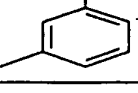
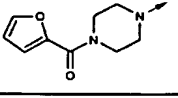
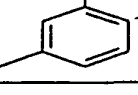
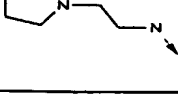
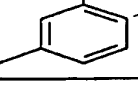
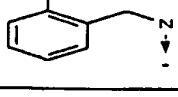
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| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
|------|----|----|-------------|------------|--------------------|
| 1412 | | | 60,5 + 30,2 | 5,14 + 5,2 | 565,25 |
| 1413 | | | 87,2 | 4,43 | 625,36 |
| 1414 | | | 60,9 + 31,9 | 5,88 + 6,0 | 638,30 |
| 1415 | | | 61,1 + 31,2 | 6,47 + 6,6 | 671,37 |
| 1416 | | | 89,3 | 4,34 | 644,35 |
| 1417 | | | 66,6 + 25,7 | 5,96 + 6,0 | 672,28 |
| 1418 | | | 65,1 + 25,4 | 6,25 + 6,3 | 678,35 |
| 1419 | | | 63 + 27,5 | 6,13 + 6,2 | 680,32 |
| 1420 | | | 54,7 + 29,8 | 5,75 + 5,8 | 662,33 |
| 1421 | | | 91,7 | 4,71 | 671,38 |
| 1422 | | | 89,3 | 4,72 | 663,41 |

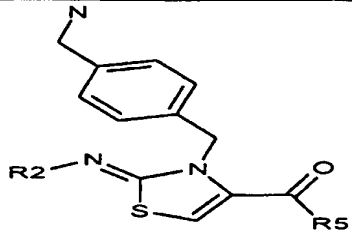
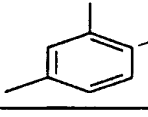
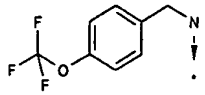
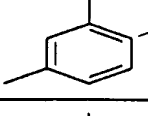
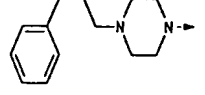
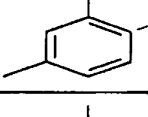
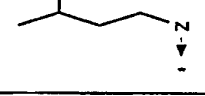
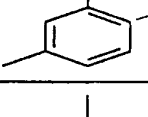
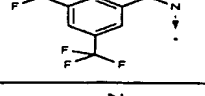
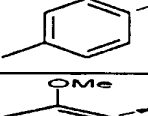
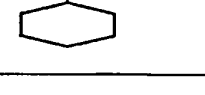
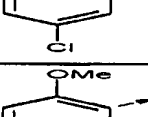
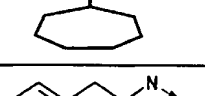
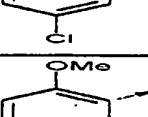
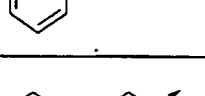
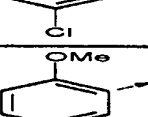
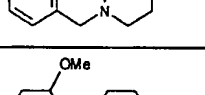
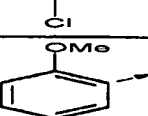
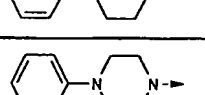
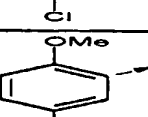
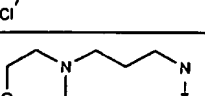
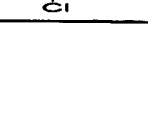

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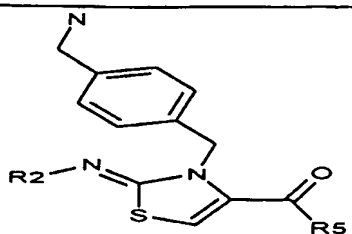
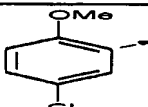
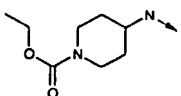
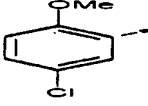
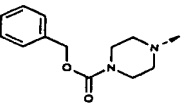
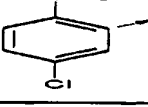
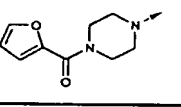
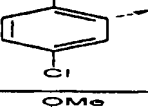
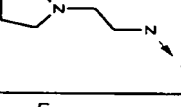
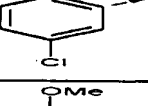
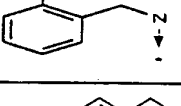
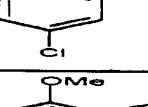
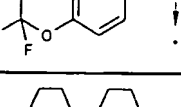
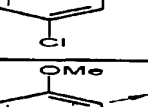

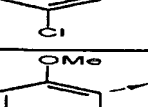
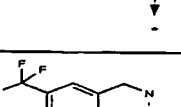
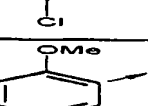
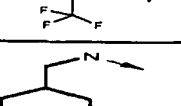
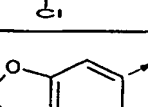
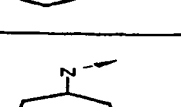
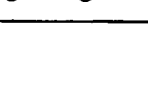
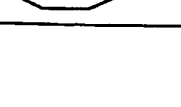
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
|------|----|----|-------------|------------|--------------------|
| 1423 | | | 49 + 23,9 | 5,34 + 5,4 | 552,26 |
| 1424 | | | 64,1 + 27,2 | 6,18 + 6,2 | 664,34 |
| 1425 | | | 62,3 + 27,3 | 6,13 + 6,2 | 670,25 |

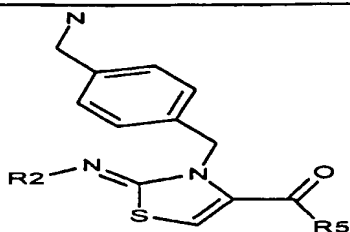


| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
|------|---|---|------------|-----------|--------------------|
| 1426 |  |  | 78,4 | 4,58 | 463,27 |
| 1427 |  |  | 53,4 | 4,48 | 471,23 |
| 1428 |  |  | 86,2 | 3,67 | 526,29 |
| 1429 |  |  | 86 | 4,58 | 542,25 |
| 1430 |  |  | 84,9 | 4,98 | 546,21 |
| 1431 |  |  | 42,9 | 3,26 | 494,27 |
| 1432 |  |  | 84,4 | 4,14 | 522,26 |
| 1433 |  |  | 83,2 | 4,72 | 570,25 |
| 1434 |  |  | 87,1 | 4,04 | 530,22 |
| 1435 |  |  | 45,6 | 3,16 | 464,25 |
| 1436 |  |  | 85,6 | 4,4 | 475,20 |

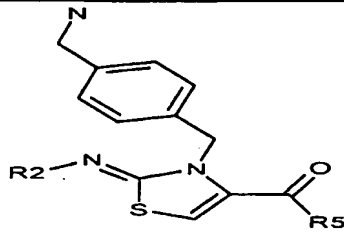
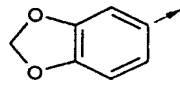
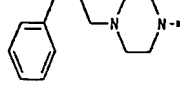
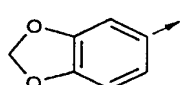
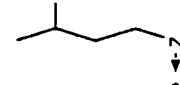
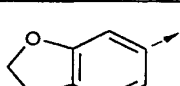
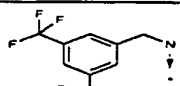
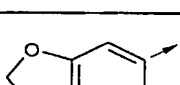
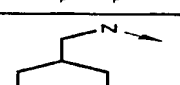
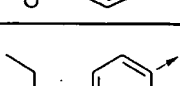
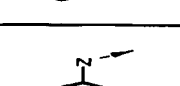
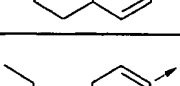
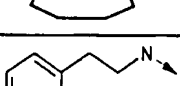
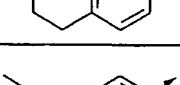
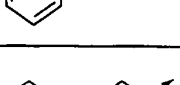
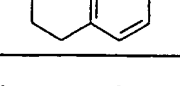
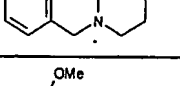
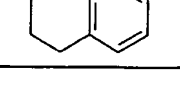
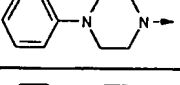
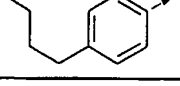
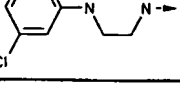
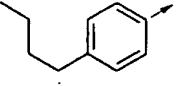
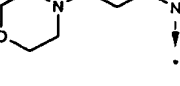
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|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1437 |  |  | 84,2 | 4,96 | 541,18 |
| 1438 |  |  | 87,2 | 3,88 | 554,28 |
| 1439 |  |  | 84,5 | 4,39 | 437,23 |
| 1440 |  |  | 33,8 | 5,34 | 593,17 |
| 1441 |  |  | 9,5 | 4,7 | 463,24 |
| 1442 |  |  | 78,8 | 5,11 | 499,20 |
| 1443 |  |  | 46,9 | 4,98 | 507,17 |
| 1444 |  |  | 87,9 | 3,88 | 562,19 |
| 1445 |  |  | 85,6 | 4,95 | 578,19 |
| 1446 |  |  | 84,9 | 5,3 | 582,14 |
| 1447 |  |  | 49 | 3,45 | 530,19 |

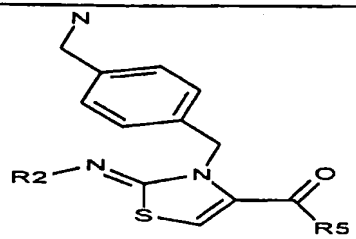
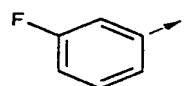
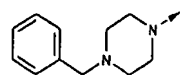
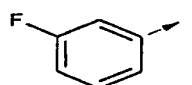
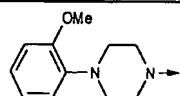
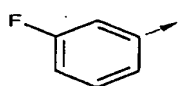
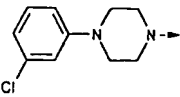
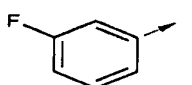
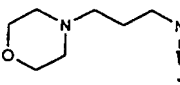
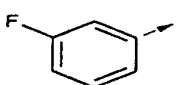
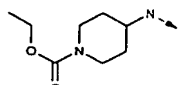
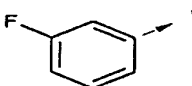
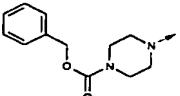
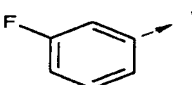
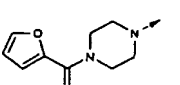
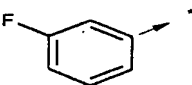
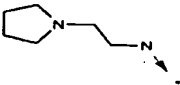
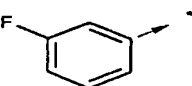
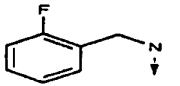
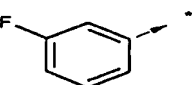
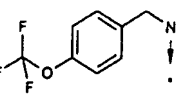
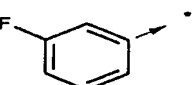
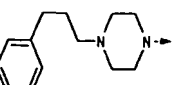
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1448 |  |  | 81,4 | 4,62 | 558,18 |
| 1449 |  |  | 83 | 5,06 | 606,20 |
| 1450 |  |  | 84,9 | 4,42 | 566,15 |
| 1451 |  |  | 40,7 | 3,5 | 500,19 |
| 1452 |  |  | 85,1 | 4,87 | 511,13 |
| 1453 |  |  | 87,4 | 5,33 | 577,13 |
| 1454 |  |  | 85,6 | 4,08 | 590,24 |
| 1455 |  |  | 54,9 | 4,92 | 473,21 |
| 1456 |  |  | 43 | 5,66 | 629,13 |
| 1457 |  |  | 17,2 | 5,2 | 499,20 |
| 1458 |  |  | 77,6 | 4,3 | 479,20 |



| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
|------|----|----|------------|-----------|--------------------|
| 1459 | | | 55,3 | 4,2 | 487,18 |
| 1460 | | | 85,2 | 3,32 | 542,22 |
| 1461 | | | 87 | 4,22 | 558,19 |
| 1462 | | | 85,9 | 4,64 | 562,14 |
| 1463 | | | 82,9 | 2,74 | 510,23 |
| 1464 | | | 81,6 | 3,84 | 538,20 |
| 1465 | | | 84,1 | 4,41 | 586,21 |
| 1466 | | | 85,5 | 3,66 | 546,16 |
| 1467 | | | 49,3 | 2,8 | 480,20 |
| 1468 | | | 81,7 | 4,11 | 491,15 |
| 1469 | | | 83,7 | 4,71 | 557,14 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1470 |  |  | 82,2 | 3,59 | 570,24 |
| 1471 |  |  | 66,1 | 4,11 | 453,19 |
| 1472 |  |  | 29,5 | 5,12 | 609,14 |
| 1473 |  |  | 9,9 | 4,44 | 479,20 |
| 1474 |  |  | 82,8 | 5,36 | 491,28 |
| 1475 |  |  | 58,2 | 5,29 | 499,26 |
| 1476 |  |  | 86,5 | 4,37 | 554,27 |
| 1477 |  |  | 86,6 | 5,33 | 570,26 |
| 1478 |  |  | 84,1 | 5,67 | 574,20 |
| 1479 |  |  | 70,3 | 3,89 | 522,29 |
| 1480 |  |  | 84,2 | 4,94 | 550,28 |

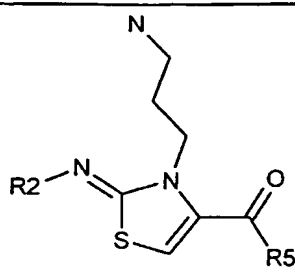
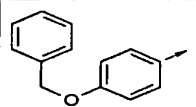
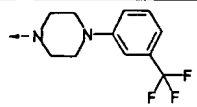
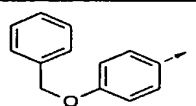
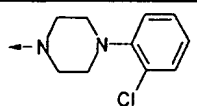
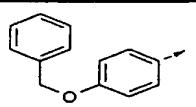
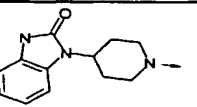
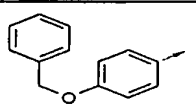
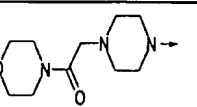
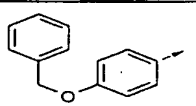
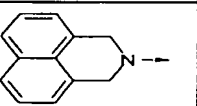
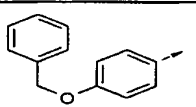
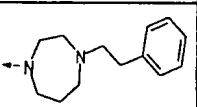
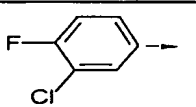
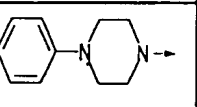
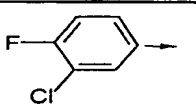
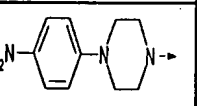
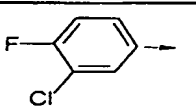
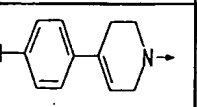
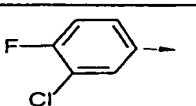
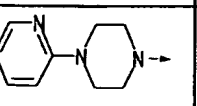
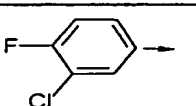
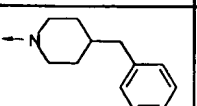
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
|------|----|----|------------|-----------|--------------------|
| 1481 | | | 84,5 | 5,44 | 598,26 |
| 1482 | | | 86 | 4,84 | 558,24 |
| 1483 | | | 50,1 | 3,93 | 492,29 |
| 1484 | | | 82,5 | 5,23 | 503,25 |
| 1485 | | | 79,3 | 5,68 | 569,19 |
| 1486 | | | 87,3 | 4,51 | 582,31 |
| 1487 | | | 79,7 | 5,22 | 465,25 |
| 1488 | | | 26,1 | 6,06 | 621,20 |
| 1489 | | | 16,1 | 5,51 | 491,28 |
| 1490 | | | 77 | 5,02 | 453,22 |
| 1491 | | | 48,4 | 4,88 | 461,16 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1492 |  |  | 83,3 | 3,74 | 516,22 |
| 1493 |  |  | 84,6 | 4,85 | 532,2 |
| 1494 |  |  | 84,4 | 5,23 | 536,15 |
| 1495 |  |  | 69,9 | 3,29 | 484,23 |
| 1496 |  |  | 79,5 | 4,51 | 512,22 |
| 1497 |  |  | 81,9 | 4,96 | 560,17 |
| 1498 |  |  | 85,5 | 4,29 | 520,16 |
| 1499 |  |  | 67,7 | 3,32 | 454,19 |
| 1500 |  |  | 82,7 | 4,78 | 465,14 |
| 1501 |  |  | 82,1 | 5,26 | 531,13 |
| 1502 |  |  | 84,8 | 3,95 | 544,22 |

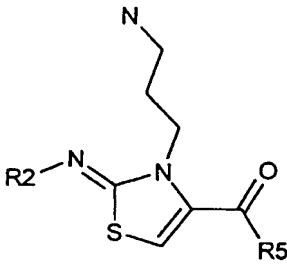
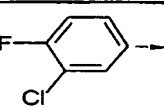
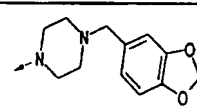
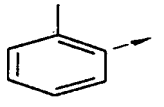
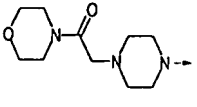
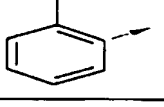
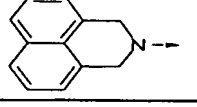
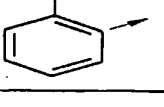
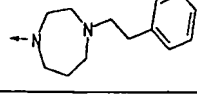
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| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
|------|----|----|------------|-----------|--------------------|
| 1503 | | | 77,5 | 4,83 | 427,16 |
| 1504 | | | 24 | 5,6 | 583,11 |
| 1505 | | | 17,7 | 5,12 | 453,21 |

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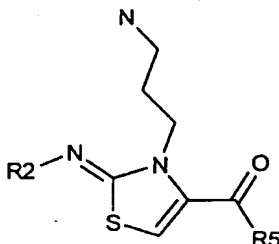
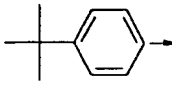
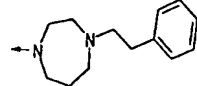
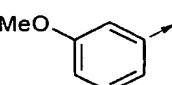
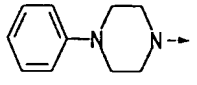
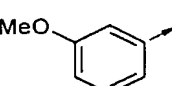
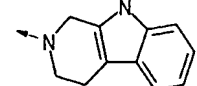
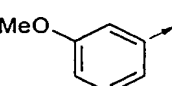
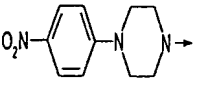
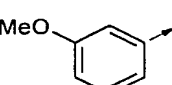
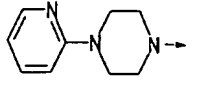
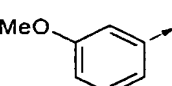
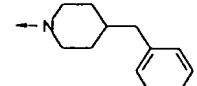
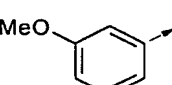
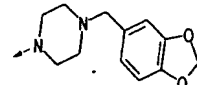
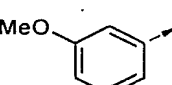
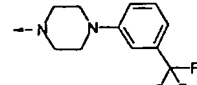
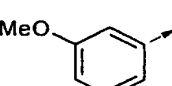
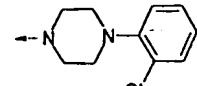
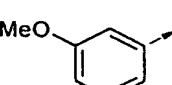
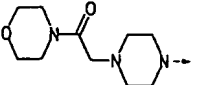
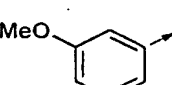
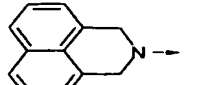
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1506 |  |  | 89,7 | 5,52 | 596,26 |
| 1507 |  |  | 87,2 | 5,37 | 562,23 |
| 1508 |  |  | 77 | 4,62 | 583,26 |
| 1509 |  |  | 89,1 | 3,7 | 579,25 |
| 1510 |  |  | 88,6 | 5,32 | 535,23 |
| 1511 |  |  | 87,6 | 4 | 570,27 |
| 1512 |  |  | 88 | 5,12 | 474,19 |
| 1513 |  |  | 90,5 | 5,09 | 519,14 |
| 1514 |  |  | 91,2 | 5,7 | 505,1 |
| 1515 |  |  | 88 | 3,74 | 475,17 |
| 1516 |  |  | 86,7 | 5,58 | 487,20 |

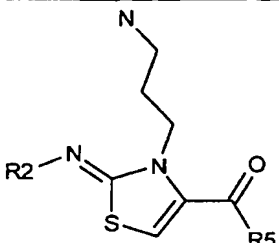
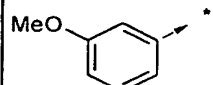
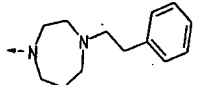
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|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1517 |  |  | 88,3 | 3,88 | 532,18 |
| 1518 |  |  | 90,4 | 3 | 487,27 |
| 1519 |  |  | 92,8 | 4,86 | 443,21 |
| 1520 |  |  | 87,8 | 3,58 | 478,28 |

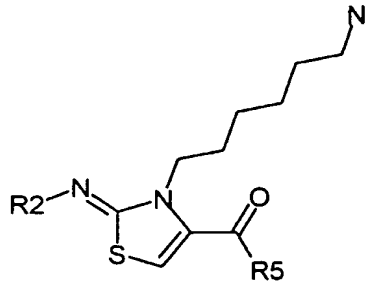
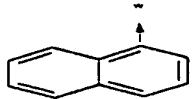
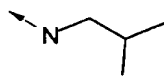
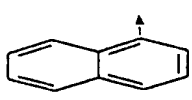
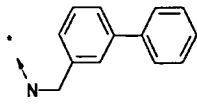
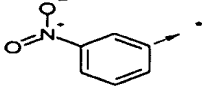
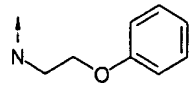
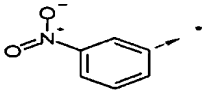
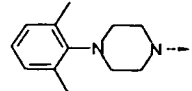
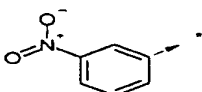
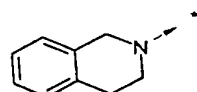
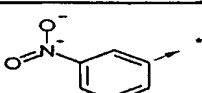
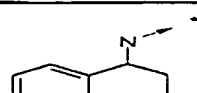
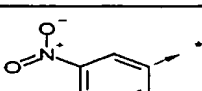
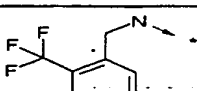
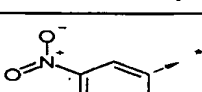
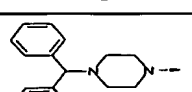
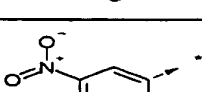
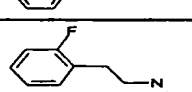
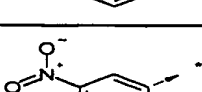
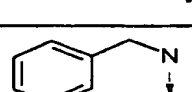
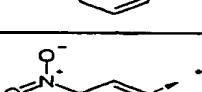
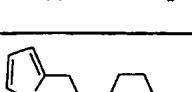
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
|------|----|----|------------|-----------|--------------------|
| 1521 | | | 90,4 | 5,2 | 478,28 |
| 1522 | | | 79,8 | 5,37 | 488,26 |
| 1523 | | | 90,3 | 5,13 | 523,27 |
| 1524 | | | 81,2 | 5,7 | 509,2 |
| 1525 | | | 91 | 3,88 | 479,26 |
| 1526 | | | 91,5 | 5,62 | 491,29 |
| 1527 | | | 91,1 | 4,1 | 536,28 |
| 1528 | | | 91,9 | 5,68 | 546,25 |
| 1529 | | | 92 | 5,54 | 512,24 |
| 1530 | | | 91,4 | 3,7 | 529,3 |
| 1531 | | | 92,4 | 5,49 | 485,23 |

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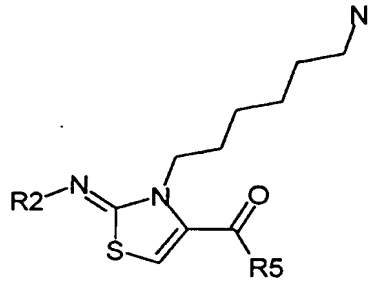
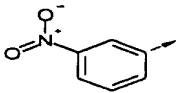
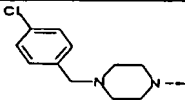
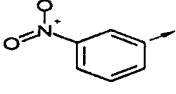
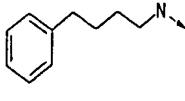
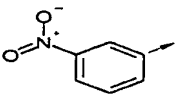
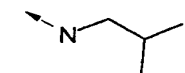
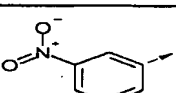
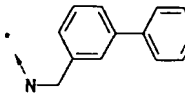
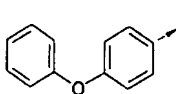
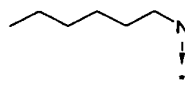
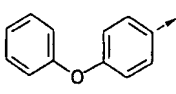
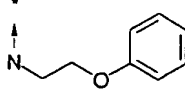
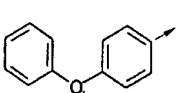
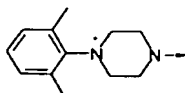
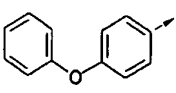
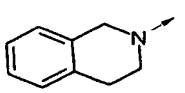
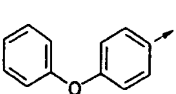
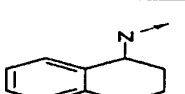
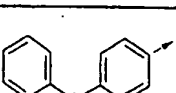
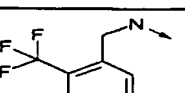
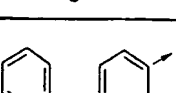
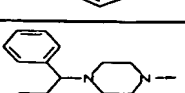
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1532 |  |  | 89,4 | 4,2 | 520,28 |
| 1533 |  |  | 90,1 | 4,56 | 452,20 |
| 1534 |  |  | 76,8 | 4,76 | 462,18 |
| 1535 |  |  | 92,5 | 4,58 | 497,22 |
| 1536 |  |  | 93,4 | 3,21 | 453,21 |
| 1537 |  |  | 91,2 | 5,04 | 465,22 |
| 1538 |  |  | 92,7 | 3,44 | 510,22 |
| 1539 |  |  | 89,6 | 5,14 | 520,18 |
| 1540 |  |  | 90,2 | 4,93 | 486,17 |
| 1541 |  |  | 89,4 | 2,98 | 503,26 |
| 1542 |  |  | 90,9 | 4,84 | 459,18 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1543 |  |  | 89,1 | 3,55 | 494,26 |

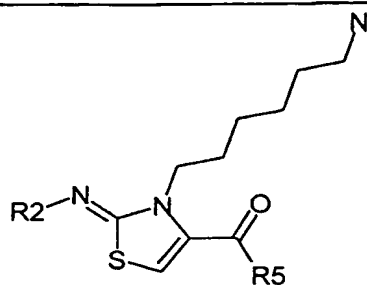
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|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1544 |  |  | 83,5 | 4,19 | 425,25 |
| 1545 |  |  | 78,8 | 5,1 | 535,25 |
| 1546 |  |  | 79,7 | 4,67 | 484,23 |
| 1547 |  |  | 88 | 5,46 | 537,27 |
| 1548 |  |  | 87,4 | 4,72 | 480,22 |
| 1549 |  |  | 82 | 4,94 | 494,23 |
| 1550 |  |  | 89,6 | 4,92 | 522,18 |
| 1551 |  |  | 86,9 | 5,03 | 599,27 |
| 1552 |  |  | 84,3 | 4,7 | 486,20 |
| 1553 |  |  | 82,7 | 3,36 | 455,18 |
| 1554 |  |  | 82 | 3,68 | 543,20 |

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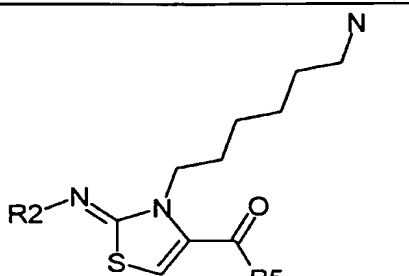
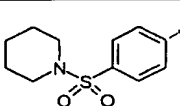
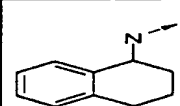
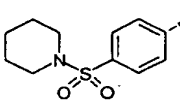
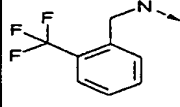
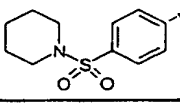
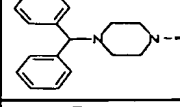
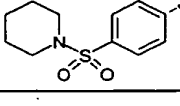
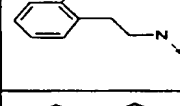
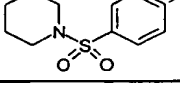
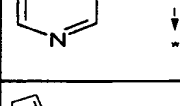
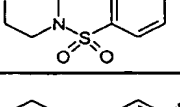
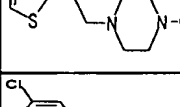
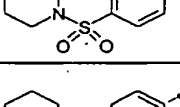
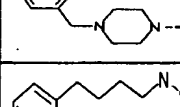
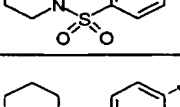
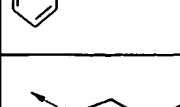
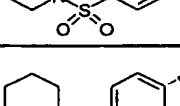
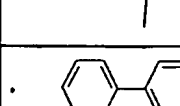
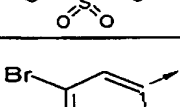
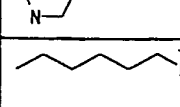
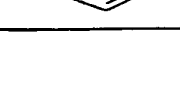
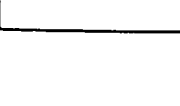
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1555 |  |  | 86,7 | 3,91 | 557,20 |
| 1556 |  |  | 80,9 | 5,06 | 496,26 |
| 1557 |  |  | 83,1 | 4,35 | 420,21 |
| 1558 |  |  | 87,5 | 5,2 | 530,22 |
| 1559 |  |  | 76,7 | 4,62 | 495,27 |
| 1560 |  |  | 80,9 | 4,44 | 531,25 |
| 1561 |  |  | 85,7 | 5,16 | 584,30 |
| 1562 |  |  | 85,4 | 4,51 | 527,25 |
| 1563 |  |  | 82,1 | 4,66 | 541,25 |
| 1564 |  |  | 87,4 | 4,66 | 569,19 |
| 1565 |  |  | 82,9 | 5,03 | 646,34 |

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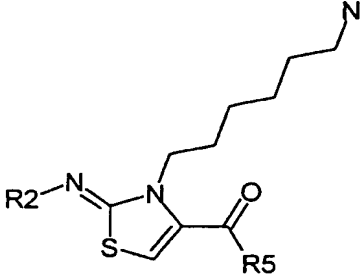
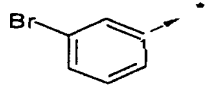
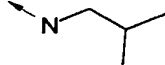
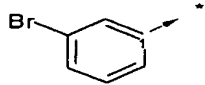
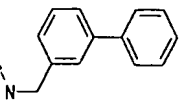
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
|------|----|----|------------|-----------|--------------------|
| 1566 | | | 82,7 | 4,44 | 533,23 |
| 1567 | | | 85 | 3,46 | 502,24 |
| 1568 | | | 81,8 | 3,82 | 590,27 |
| 1569 | | | 84,5 | 4,03 | 604,26 |
| 1570 | | | 81,9 | 4,74 | 543,27 |
| 1571 | | | 84,3 | 4,13 | 467,25 |
| 1572 | | | 77,4 | 4,9 | 577,2 |
| 1573 | | | 77,7 | 5,15 | 550,3 |
| 1574 | | | 80,7 | 4,9 | 586,24 |
| 1575 | | | 86,4 | 5,6 | 639,34 |
| 1576 | | | 86,2 | 4,94 | 582,25 |

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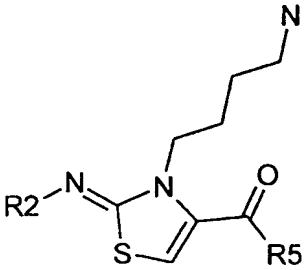
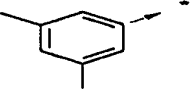
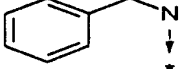
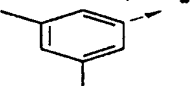
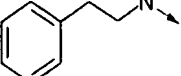
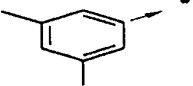
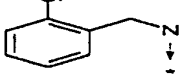
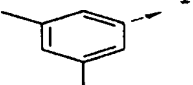
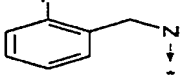
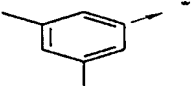
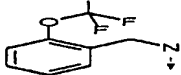
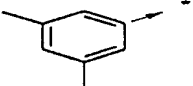
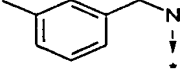
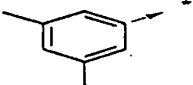
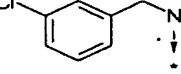
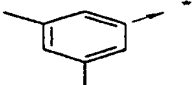
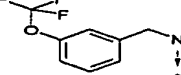
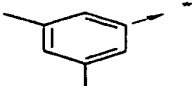
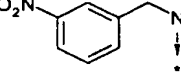
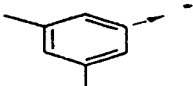
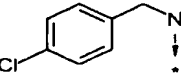
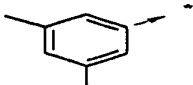
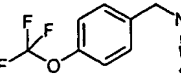
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1577 |  |  | 82 | 5,17 | 596,28 |
| 1578 |  |  | 89,7 | 5,14 | 624,22 |
| 1579 |  |  | 86,1 | 5,22 | 701,35 |
| 1580 |  |  | 85,1 | 4,92 | 588,23 |
| 1581 |  |  | 81,7 | 3,67 | 557,23 |
| 1582 |  |  | 81 | 3,9 | 645,32 |
| 1583 |  |  | 85,2 | 4,12 | 659,31 |
| 1584 |  |  | 82,4 | 5,26 | 598,26 |
| 1585 |  |  | 83,6 | 4,62 | 522,25 |
| 1586 |  |  | 85,3 | 5,39 | 632,29 |
| 1587 |  |  | 82,8 | 4,94 | 481,16 |

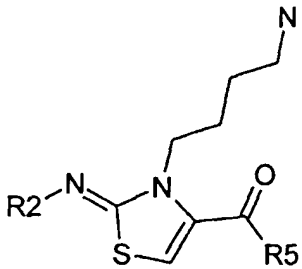
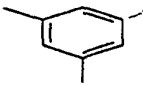
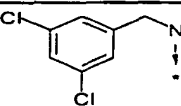
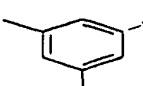
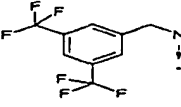
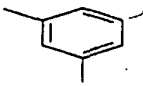
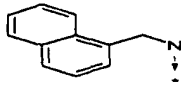
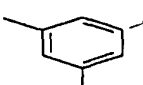
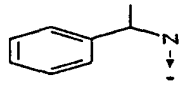
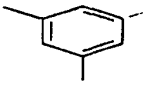
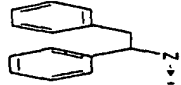
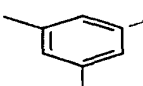
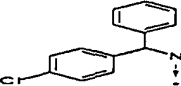
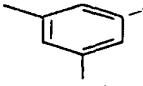

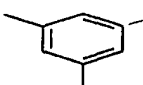
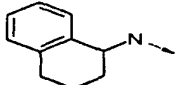
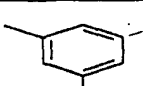
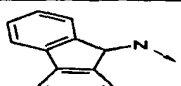
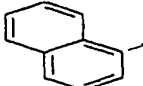
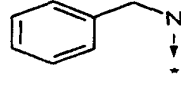
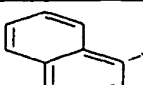
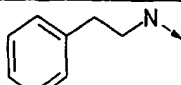
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
|------|----|----|------------|-----------|--------------------|
| 1588 | | | 84,3 | 4,71 | 517,16 |
| 1589 | | | 89,6 | 5,54 | 570,16 |
| 1590 | | | 87,8 | 4,78 | 513,13 |
| 1591 | | | 85,2 | 4,99 | 527,15 |
| 1592 | | | 90,9 | 4,98 | 555,07 |
| 1593 | | | 88,1 | 5,21 | 632,22 |
| 1594 | | | 86,9 | 4,72 | 519,10 |
| 1595 | | | 87,4 | 3,47 | 488,12 |
| 1596 | | | 82,5 | 3,82 | 576,16 |
| 1597 | | | 86,1 | 4,06 | 590,12 |
| 1598 | | | 85,1 | 5,08 | 529,16 |

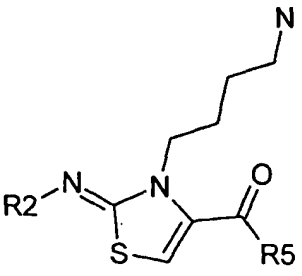
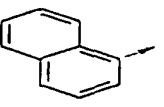
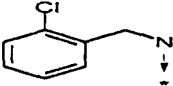
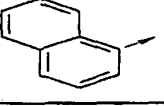
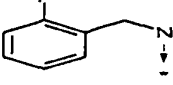
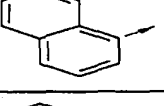
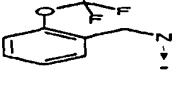
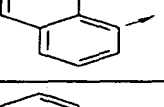
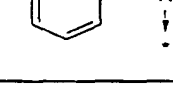
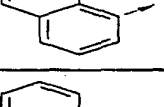
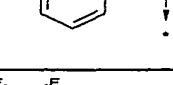
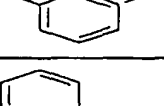
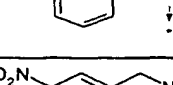
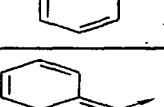
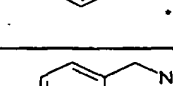
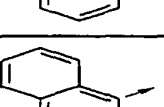
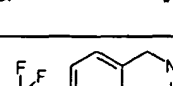
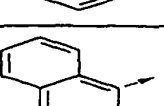
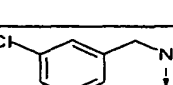
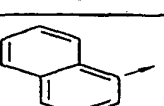
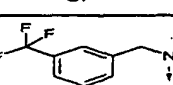

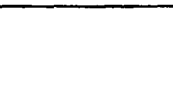
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|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1599 |  |  | 84,8 | 4,34 | 453,13 |
| 1600 |  |  | 74,9 | 5,26 | 563,13 |

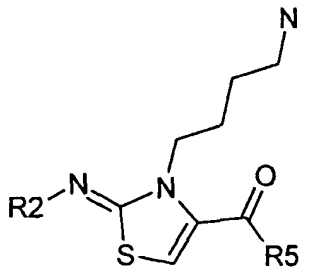
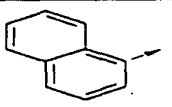
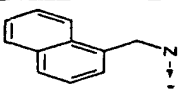
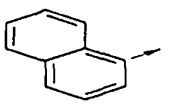
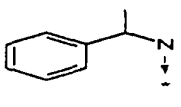
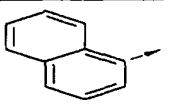
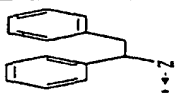
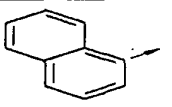
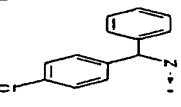
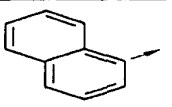
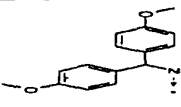
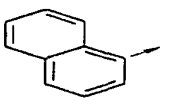
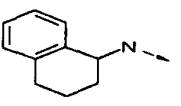
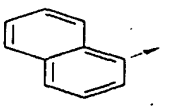
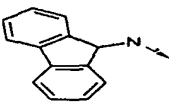
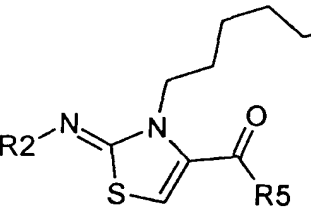
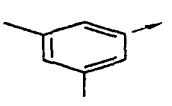
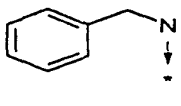
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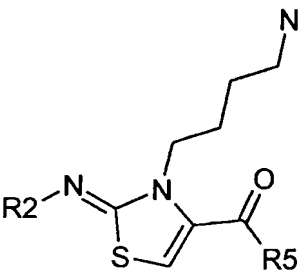
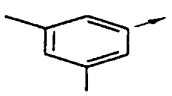
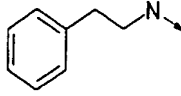
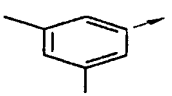
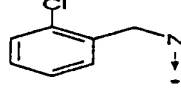
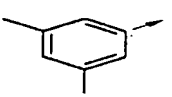
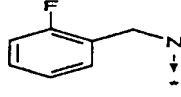
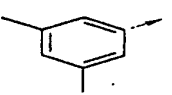
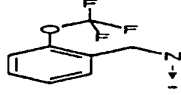

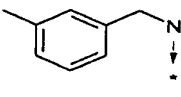
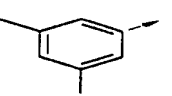
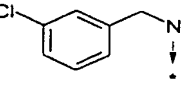
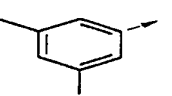
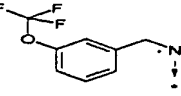
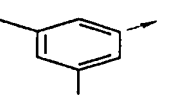
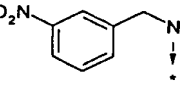
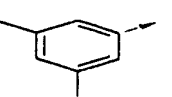
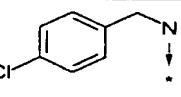
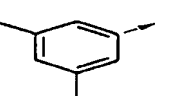
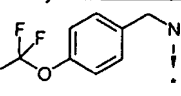
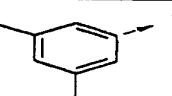
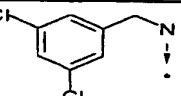
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1601 |  |  | 88,1 | 3,87 | 409,24 |
| 1602 |  |  | 90,1 | 4,0 | 423,26 |
| 1603 |  |  | 60,2 | 4,1 | 443,21 |
| 1604 |  |  | 91 | 3,9 | 427,24 |
| 1605 |  |  | 57,6 | 4,4 | 493,23 |
| 1606 |  |  | 48,1 | 4,12 | 423,27 |
| 1607 |  |  | 45,1 | 4,2 | 443,22 |
| 1608 |  |  | 60,8 | 4,49 | 493,24 |
| 1609 |  |  | 54,5 | 3,98 | 454,26 |
| 1610 |  |  | 84 | 4,19 | 443,23 |
| 1611 |  |  | 92,8 | 4,49 | 493,25 |

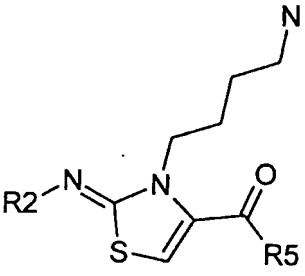
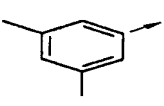
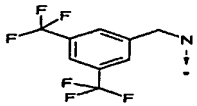
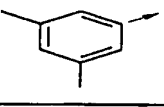
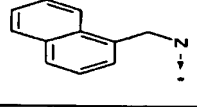
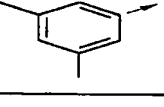
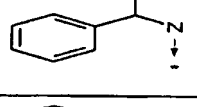
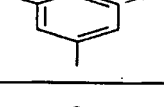

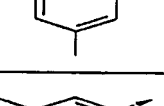
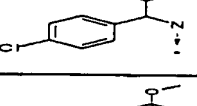
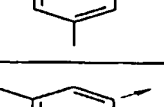

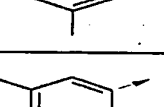
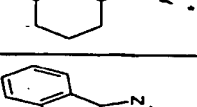
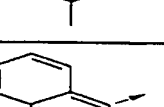
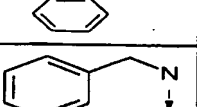
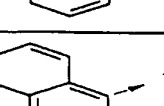
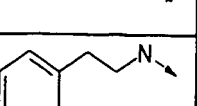
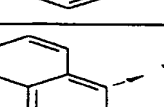
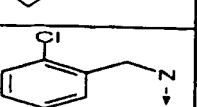

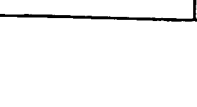
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1612 |  |  | 86,2 | 4,51 | 477,21 |
| 1613 |  |  | 84,1 | 4,84 | 545,22 |
| 1614 |  |  | 77,7 | 4,34 | 459,30 |
| 1615 |  |  | 90,6 | 3,95 | 423,29 |
| 1616 |  |  | 91,8 | 4,6 | 499,35 |
| 1617 |  |  | 91,9 | 4,86 | 519,27 |
| 1618 |  |  | 62 | 4,6 | 545,3 |
| 1619 |  |  | 91,7 | 4,28 | 449,32 |
| 1620 |  |  | 63,1 | 4,62 | 483,29 |
| 1621 |  |  | 83,8 | 4,41 | 431,26 |
| 1622 |  |  | 64,2 | 4,55 | 445,26 |

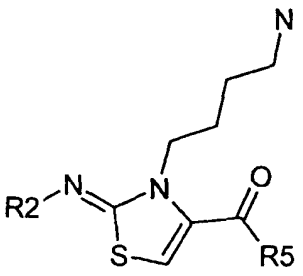
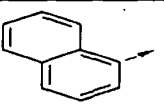
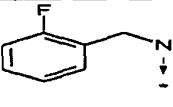
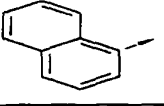
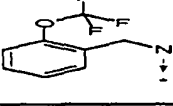
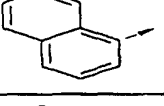
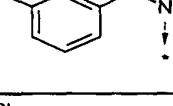
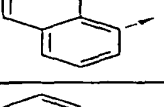
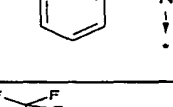
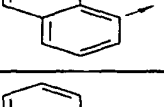
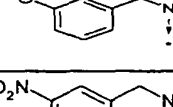
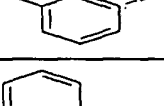
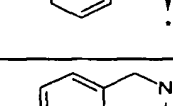
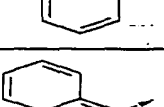
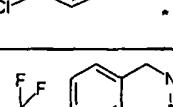
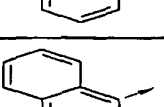
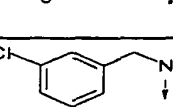
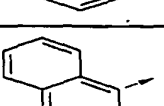
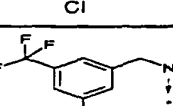
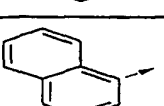
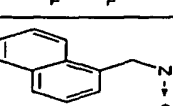


|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1623 |  |  | 48,9 | 4,66 | 465,21 |
| 1624 |  |  | 89 | 4,46 | 449,27 |
| 1625 |  |  | 56,7 | 4,94 | 515,24 |
| 1626 |  |  | 78,4 | 4,65 | 445,25 |
| 1627 |  |  | 44,5 | 4,72 | 465,21 |
| 1628 |  |  | 84,7 | 5,01 | 515,24 |
| 1629 |  |  | 73,9 | 4,5 | 476,27 |
| 1630 |  |  | 76,8 | 4,74 | 465,21 |
| 1631 |  |  | 88,6 | 5,02 | 515,24 |
| 1632 |  |  | 90,6 | 5,05 | 499,19 |
| 1633 |  |  | 89,4 | 5,35 | 567,21 |

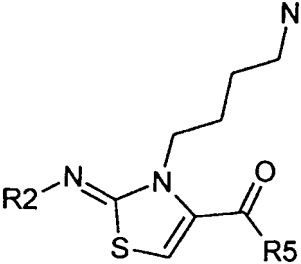
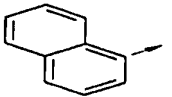
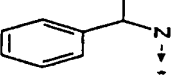
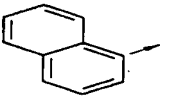
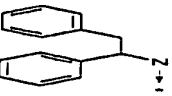
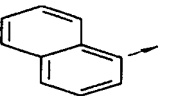
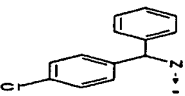
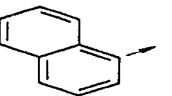
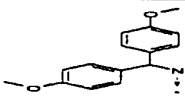
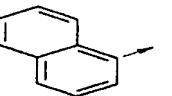
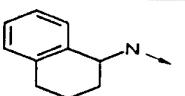
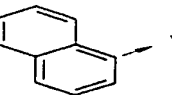
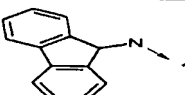
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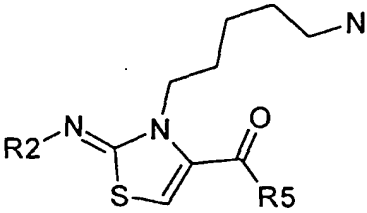
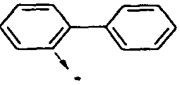
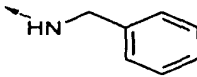
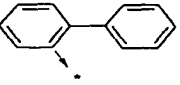
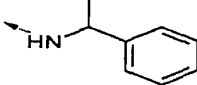
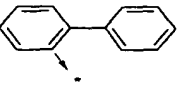
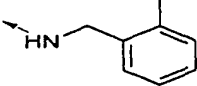
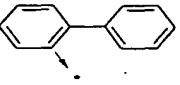
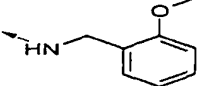
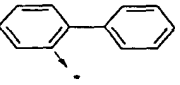
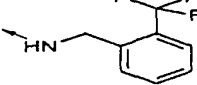
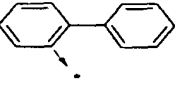
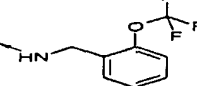
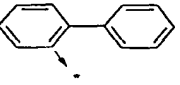
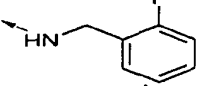
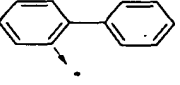
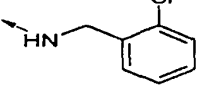
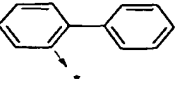
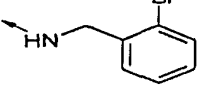
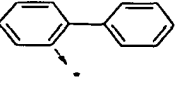
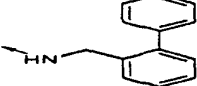
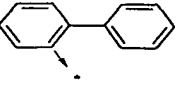
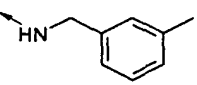
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1634 |  |  | 80,6 | 4,88 | 481,28 |
| 1635 |  |  | 90,6 | 4,49 | 445,26 |
| 1636 |  |  | 91,1 | 5,14 | 521,28 |
| 1637 |  |  | 91,2 | 5,38 | 541,23 |
| 1638 |  |  | 90 | 5,1 | 567,3 |
| 1639 |  |  | 92,9 | 4,84 | 471,28 |
| 1640 |  |  | 88,3 | 5,13 | 505,28 |
|  | | | | | |
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1641 |  |  | 83,5 | 3,86 | 423,29 |

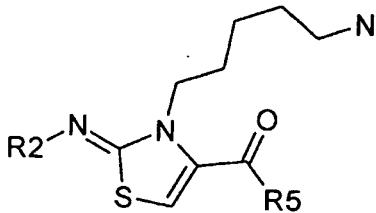
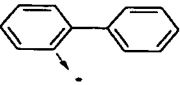
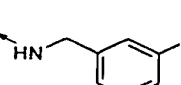
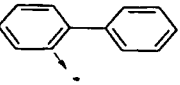
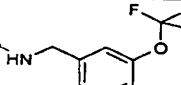
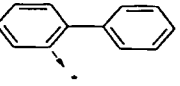
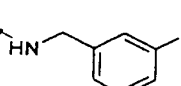
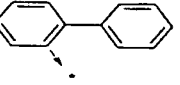
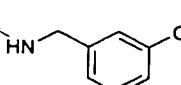
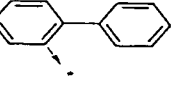
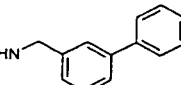
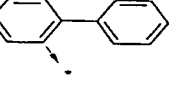
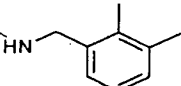
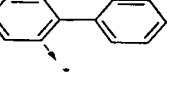
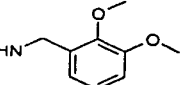
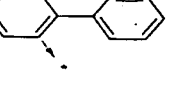
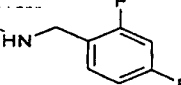
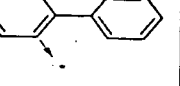
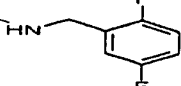
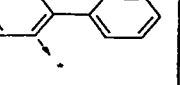
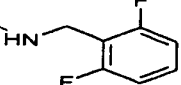
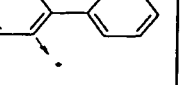
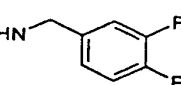
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|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1642 |  |  | 81,9 | 4 | 437,30 |
| 1643 |  |  | 81,1 | 4,07 | 457,25 |
| 1644 |  |  | 89,9 | 3,89 | 441,27 |
| 1645 |  |  | 91,5 | 4,35 | 507,27 |
| 1646 |  |  | 70,6 | 4,08 | 437,31 |
| 1647 |  |  | 73,2 | 4,14 | 457,26 |
| 1648 |  |  | 91,7 | 4,42 | 507,27 |
| 1649 |  |  | 61,9 | 3,96 | 468,26 |
| 1650 |  |  | 82,6 | 4,16 | 457,25 |
| 1651 |  |  | 78,5 | 4,46 | 507,26 |
| 1652 |  |  | 80 | 4,46 | 491,21 |

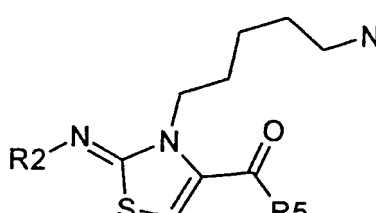
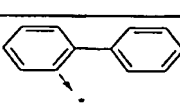
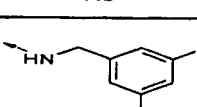
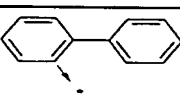
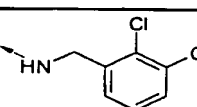
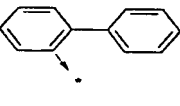
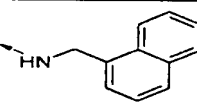
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|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1653 |  |  | 80,7 | 4,78 | 559,24 |
| 1654 |  |  | 90,3 | 4,28 | 473,33 |
| 1655 |  |  | 91,4 | 3,93 | 437,30 |
| 1656 |  |  | 93,5 | 4,55 | 513,33 |
| 1657 |  |  | 92,8 | 4,82 | 533,27 |
| 1658 |  |  | 58 | 4,5 | 559,3 |
| 1659 |  |  | 92,1 | 4,24 | 463,32 |
| 1660 |  |  | 92,2 | 4,53 | 497,29 |
| 1661 |  |  | 36,9 | 4,42 | 445,25 |
| 1662 |  |  | 31 | 4,56 | 459,28 |
| 1663 |  |  | 38,9 | 4,67 | 479,24 |

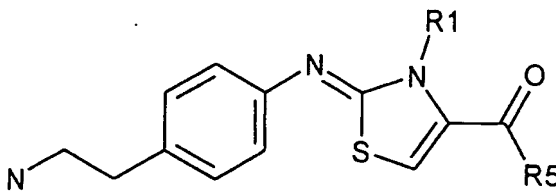
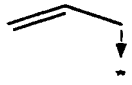
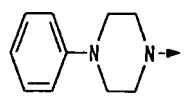
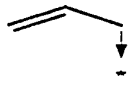
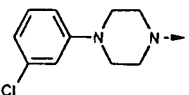
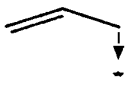
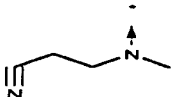
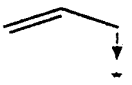
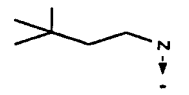
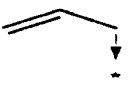
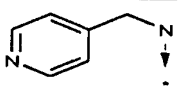
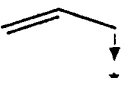
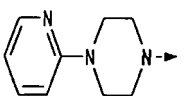
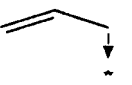
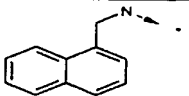
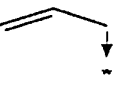
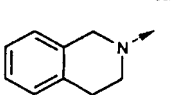
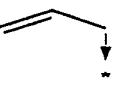
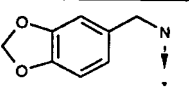
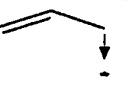
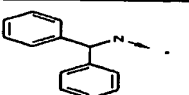
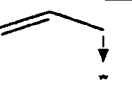
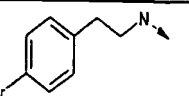
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1664 |  |  | 43,4 | 4,47 | 463,27 |
| 1665 |  |  | 47,9 | 4,98 | 529,2 |
| 1666 |  |  | 32,1 | 4,66 | 459,28 |
| 1667 |  |  | 23 | 4,74 | 479,23 |
| 1668 |  |  | 38,1 | 5,02 | 529,25 |
| 1669 |  |  | 35,5 | 4,51 | 490,27 |
| 1670 |  |  | 47,1 | 4,74 | 479,23 |
| 1671 |  |  | 37,1 | 5,04 | 529,25 |
| 1672 |  |  | 60,9 | 5,07 | 513,19 |
| 1673 |  |  | 82,8 | 5,34 | 581,23 |
| 1674 |  |  | 20,5 | 4,91 | 495,27 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1675 |  |  | 72 | 4,52 | 459,28 |
| 1676 |  |  | 91,1 | 5,14 | 535,30 |
| 1677 |  |  | 89,3 | 5,4 | 555,23 |
| 1678 |  |  | 52 | 5,1 | 581,3 |
| 1679 |  |  | 91,3 | 4,84 | 485,31 |
| 1680 |  |  | 71,7 | 5,14 | 519,29 |

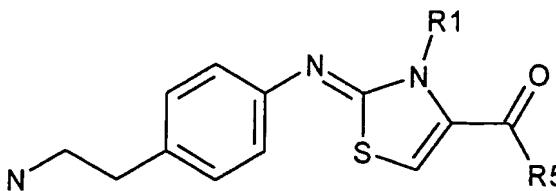
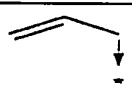
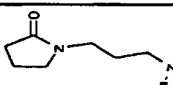
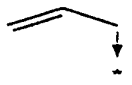
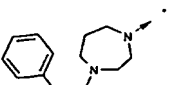
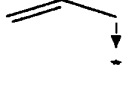
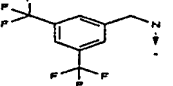

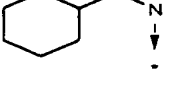

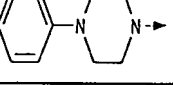
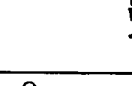
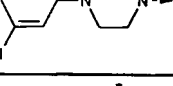
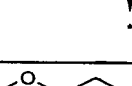
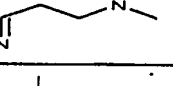
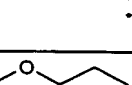
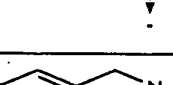
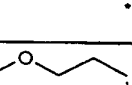

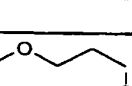
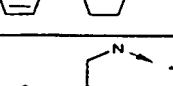

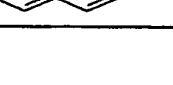
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1681 |  |  | 72,7 | 4,26 | 471,34 |
| 1682 |  |  | 76,3 | 4,36 | 485,34 |
| 1683 |  |  | 51,6 | 4,47 | 485,33 |
| 1684 |  |  | 33,6 | 4,39 | 501,32 |
| 1685 |  |  | 79,9 | 4,7 | 539,29 |
| 1686 |  |  | 76 | 4,77 | 555,28 |
| 1687 |  |  | 53,2 | 4,34 | 489,30 |
| 1688 |  |  | 59,2 | 4,51 | 505,27 |
| 1689 |  |  | 74,7 | 4,57 | 549,21 |
| 1690 |  |  | 82 | 4,84 | 547,34 |
| 1691 |  |  | 68,8 | 4,49 | 485,32 |

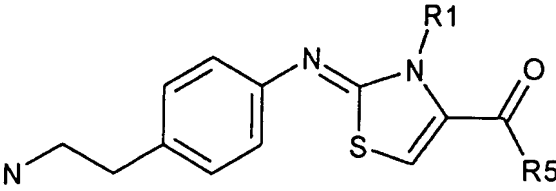
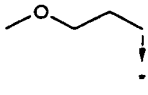
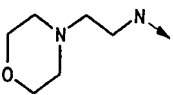
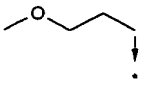
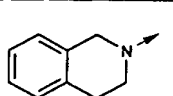
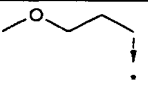
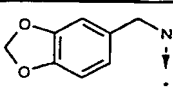
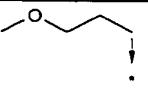
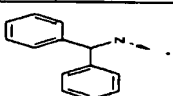
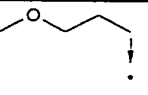
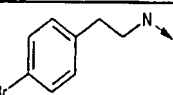
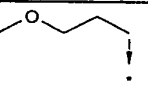
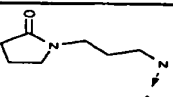
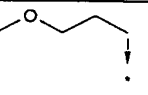
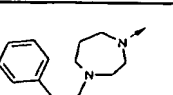
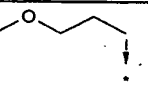
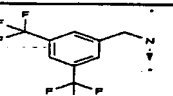
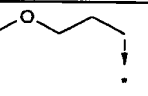
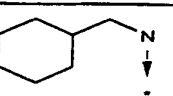
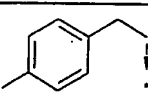
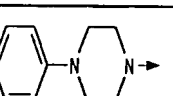
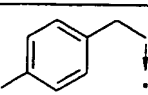
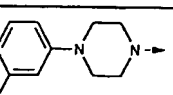
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|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1692 |  |  | 73,4 | 4,25 | 501,37 |
| 1693 |  |  | 75,0 | 4,83 | 555,27 |
| 1694 |  |  | 44,5 | 4,39 | 489,30 |
| 1695 |  |  | 42,7 | 4,57 | 505,25 |
| 1696 |  |  | 79,8 | 4,97 | 547,32 |
| 1697 |  |  | 78,9 | 4,56 | 499,39 |
| 1698 |  |  | 70,8 | 4,27 | 531,36 |
| 1699 |  |  | 77,5 | 4,35 | 507,33 |
| 1700 |  |  | 78,9 | 4,34 | 507,33 |
| 1701 |  |  | 75,8 | 4,27 | 507,32 |
| 1702 |  |  | 74,9 | 4,41 | 507,32 |

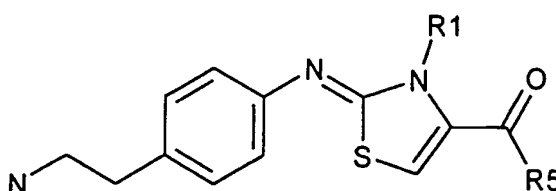
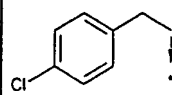
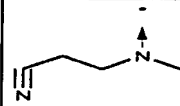
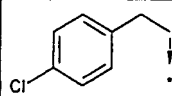
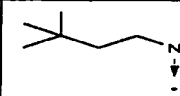
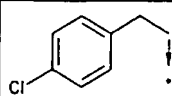
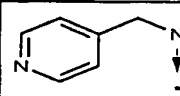
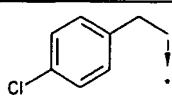
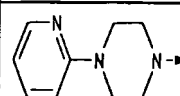
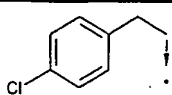
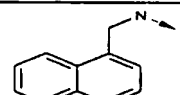
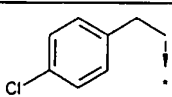
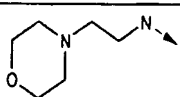
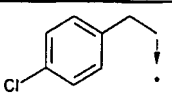
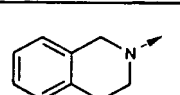
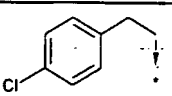
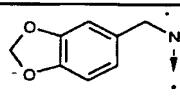
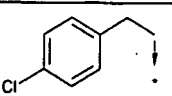
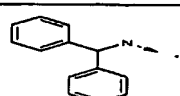
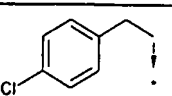
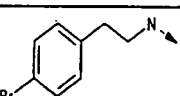
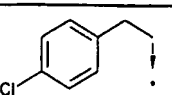
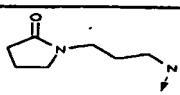
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1703 |  |  | 75,3 | 4,49 | 507,29 |
| 1704 |  |  | 73,5 | 4,75 | 539,22 |
| 1705 |  |  | 82,9 | 4,7 | 521,31 |

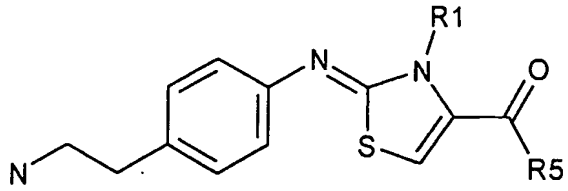
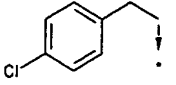
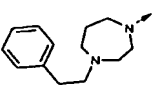
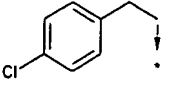
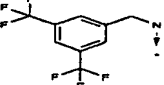
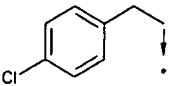
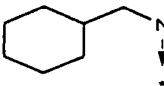
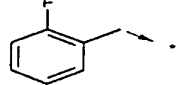
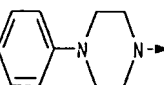
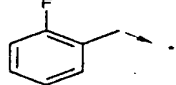
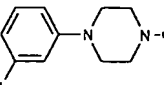
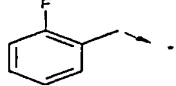
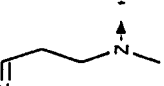
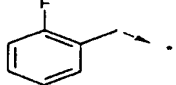
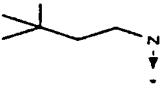
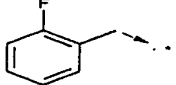
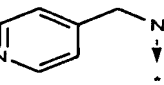
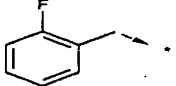
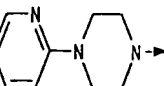
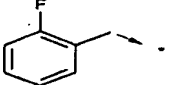
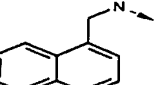
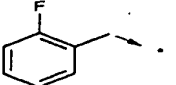
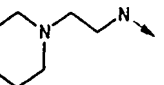
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|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1706 |  |  | 87,3 | 3,8 | 448,31 |
| 1707 |  |  | 86,0 | 4,3 | 482,24 |
| 1708 |  |  | 90,0 | 2,4 | 370,24 |
| 1709 |  |  | 76,6 | 3,88 | 387,26 |
| 1710 |  |  | 53,2 | 3,0 | 394,2 |
| 1711 |  |  | 91,2 | 2,3 | 449,29 |
| 1712 |  |  | 87,7 | 4,13 | 443,29 |
| 1713 |  |  | 88,3 | 3,7 | 419,28 |
| 1714 |  |  | 70,8 | 3,5 | 437,25 |
| 1715 |  |  | 87,0 | 4,4 | 469,30 |
| 1716 |  |  | 82,5 | 4,12 | 485,20 |

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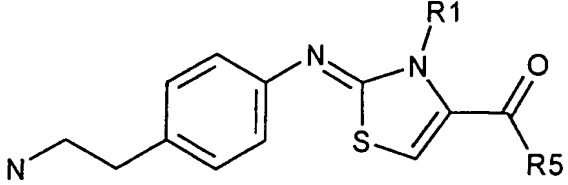
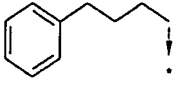
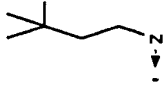
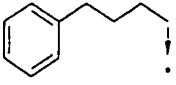
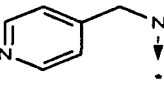
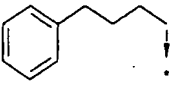
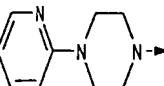
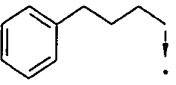
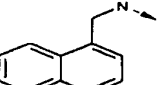
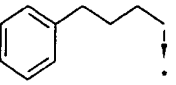
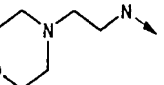
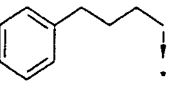
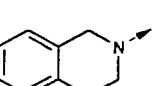
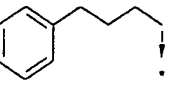
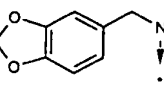
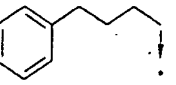
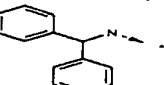
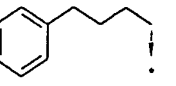
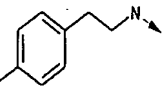
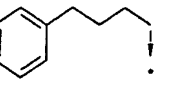
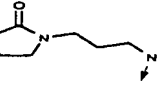
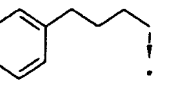
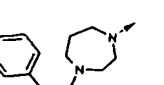
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1717 |  |  | 88,1 | 2,59 | 428,29 |
| 1718 |  |  | 88,7 | 2,8 | 490,35 |
| 1719 |  |  | 79,0 | 4,68 | 529,23 |
| 1720 |  |  | 78,0 | 3,94 | 399,29 |
| 1721 |  |  | 87,4 | 3,7 | 480,32 |
| 1722 |  |  | 83,1 | 4,14 | 514,28 |
| 1723 |  |  | 89,1 | 2,44 | 402,24 |
| 1724 |  |  | 81,5 | 3,73 | 419,3 |
| 1725 |  |  | 56,1 | 3,0 | 416,2 |
| 1726 |  |  | 90,1 | 2,3 | 481,33 |
| 1727 |  |  | 87,3 | 3,96 | 475,31 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1728 |  |  | 75,2 | 2,9 | 448,3 |
| 1729 |  |  | 85,7 | 3,61 | 451,29 |
| 1730 |  |  | 74,5 | 3,37 | 469,28 |
| 1731 |  |  | 83,7 | 4,22 | 501,32 |
| 1732 |  |  | 86,7 | 3,95 | 517,20 |
| 1733 |  |  | 80,6 | 2,61 | 460,32 |
| 1734 |  |  | 80,8 | 2,8 | 522,35 |
| 1735 |  |  | 74,0 | 4,48 | 561,23 |
| 1736 |  |  | 81,2 | 3,8 | 431,31 |
| 1737 |  |  | 87,1 | 4,76 | 546,27 |
| 1738 |  |  | 85,5 | 5,16 | 580,24 |

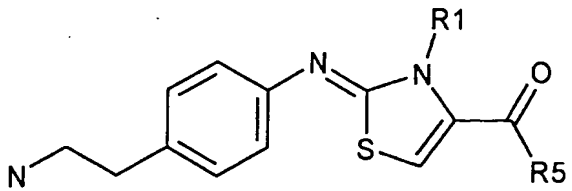
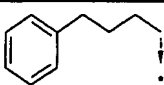
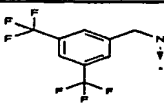
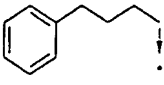
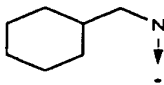
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|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1739 |  |  | 85,5 | 3,72 | 468,24 |
| 1740 |  |  | 82,1 | 4,74 | 485,29 |
| 1741 |  |  | 80,7 | 3,04 | 492,24 |
| 1742 |  |  | 87,7 | 3,4 | 547,28 |
| 1743 |  |  | 81,9 | 4,96 | 541,23 |
| 1744 |  |  | 55,2 | 2,9 | 514,27 |
| 1745 |  |  | 87,2 | 4,7 | 517,25 |
| 1746 |  |  | 73,7 | 4,39 | 535,21 |
| 1747 |  |  | 84,3 | 5,22 | 567,25 |
| 1748 |  |  | 74,7 | 4,9 | 583,16 |
| 1749 |  |  | 76,8 | 3,53 | 526,28 |

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|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1750 |  |  | 84,3 | 3,7 | 588,34 |
| 1751 |  |  | 74,4 | 5,41 | 627,20 |
| 1752 |  |  | 80,9 | 4,88 | 497,31 |
| 1753 |  |  | 83,4 | 4,53 | 516,2 |
| 1754 |  |  | 83,2 | 4,96 | 550,24 |
| 1755 |  |  | 84,1 | 3,39 | 438,25 |
| 1756 |  |  | 84,7 | 4,71 | 455,28 |
| 1757 |  |  | 56,6 | 2,8 | 462,24 |
| 1758 |  |  | 85,0 | 3,0 | 517,30 |
| 1759 |  |  | 84,6 | 4,9 | 511,26 |
| 1760 |  |  | 82,1 | 2,8 | 484,3 |

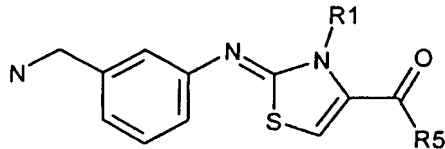
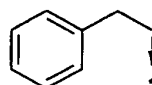
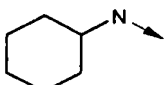
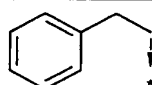
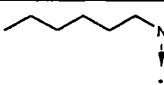
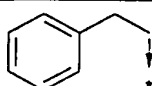
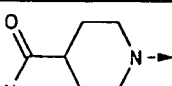
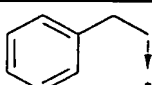
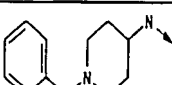
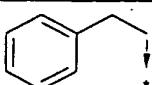
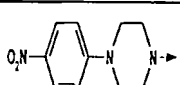
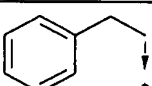
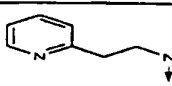
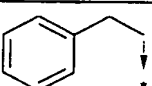
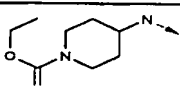
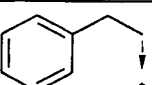
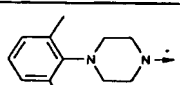
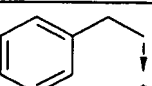
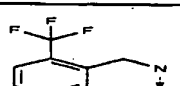
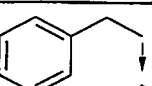
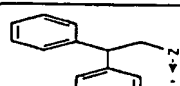
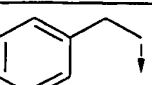
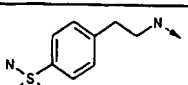
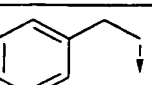
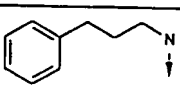
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
|------|----|----|------------|-----------|--------------------|
| 1761 | | | 84,4 | 4,44 | 487,27 |
| 1762 | | | 52,0 | 4,3 | 505,23 |
| 1763 | | | 84,5 | 5,12 | 537,28 |
| 1764 | | | 81,5 | 4,93 | 553,17 |
| 1765 | | | 80,2 | 3,34 | 496,29 |
| 1766 | | | 85,9 | 3,5 | 558,31 |
| 1767 | | | 53,4 | 5,39 | 597,22 |
| 1768 | | | 81,6 | 4,81 | 467,29 |
| 1769 | | | 83,5 | 3,5 | 540,32 |
| 1770 | | | 82,4 | 5,01 | 574,27 |
| 1771 | | | 80,9 | 3,72 | 462,30 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1772 |  |  | 77,9 | 4,78 | 479,36 |
| 1773 |  |  | 79,3 | 3,11 | 486,32 |
| 1774 |  |  | 85,0 | 3,4 | 541,35 |
| 1775 |  |  | 85,3 | 4,9 | 535,31 |
| 1776 |  |  | 74,9 | 3,0 | 508,34 |
| 1777 |  |  | 83,9 | 4,58 | 511,33 |
| 1778 |  |  | 69,1 | 4,4 | 529,3 |
| 1779 |  |  | 83,1 | 5,1 | 561,3 |
| 1780 |  |  | 81,8 | 4,9 | 577,23 |
| 1781 |  |  | 83,6 | 3,64 | 520,34 |
| 1782 |  |  | 80,9 | 3,7 | 582,4 |

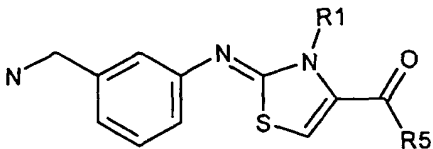
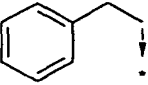
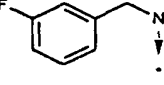
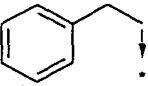
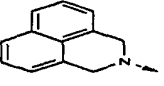
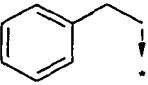
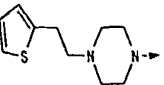
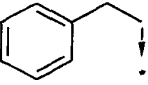
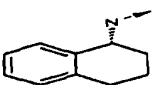
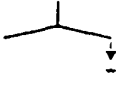
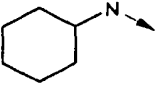
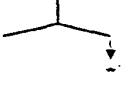
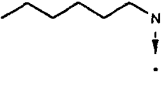
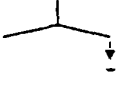
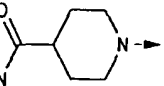
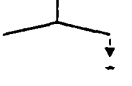
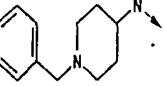
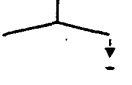
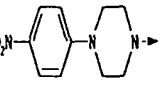
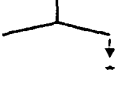
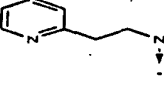
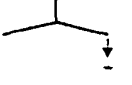
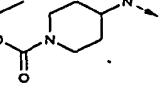
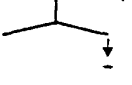
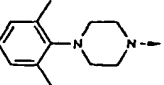
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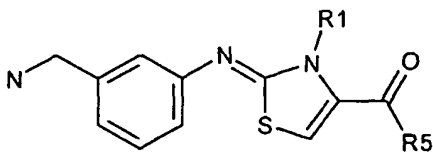
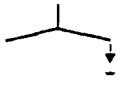
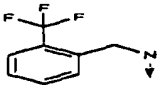
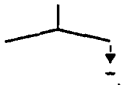
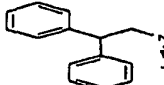
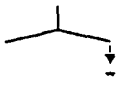
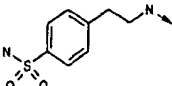
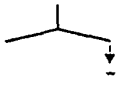
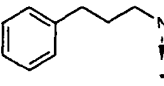
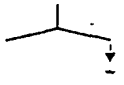
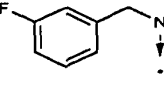
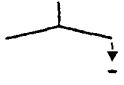
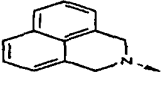
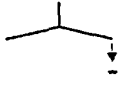
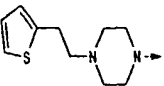
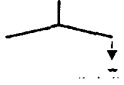
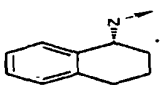
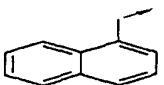
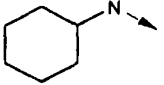
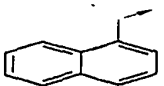
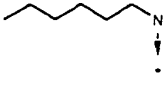
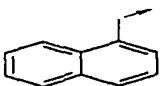
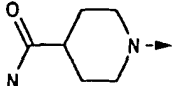
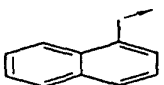
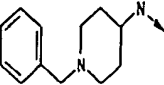
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1783 |  |  | 68,0 | 5,34 | 621,28 |
| 1784 |  |  | 76,3 | 4,85 | 491,36 |

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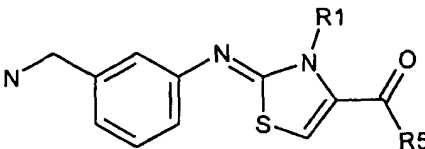
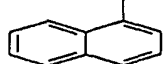
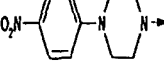
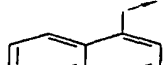
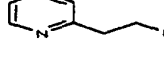
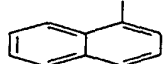
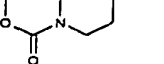
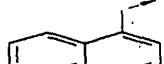
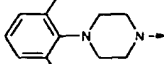
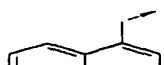
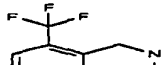
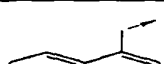
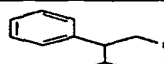

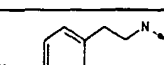
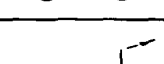
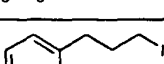
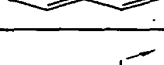
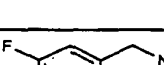
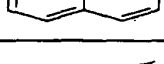
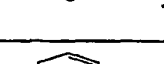
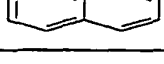
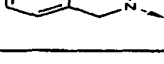
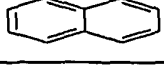
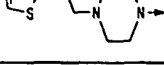
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1785 |  |  | 77,9 | 4,44 | 435,25 |
| 1786 |  |  | 78,8 | 4,83 | 437,30 |
| 1787 |  |  | 79,5 | 3,13 | 464,27 |
| 1788 |  |  | 80,3 | 3,28 | 526,38 |
| 1789 |  |  | 86,6 | 4,67 | 543,32 |
| 1790 |  |  | 74,8 | 2,9 | 458,32 |
| 1791 |  |  | 81,7 | 3,99 | 508,34 |
| 1792 |  |  | 86,9 | 5,41 | 526,38 |
| 1793 |  |  | 86,4 | 4,85 | 511,27 |
| 1794 |  |  | 82,2 | 5,07 | 533,35 |
| 1795 |  |  | 83,1 | 3,55 | 536,28 |
| 1796 |  |  | 82,3 | 4,66 | 471,3 |

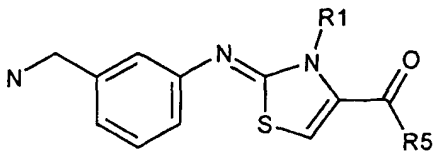
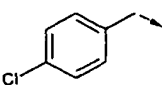
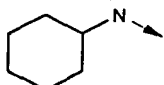
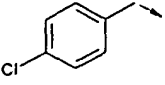
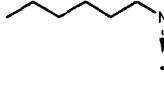
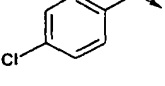
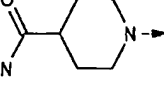
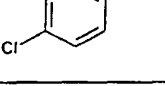
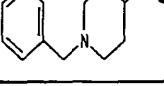
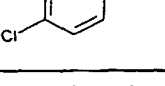
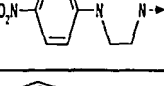
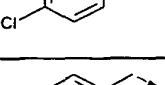
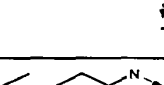
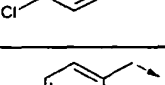
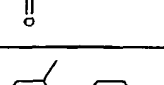
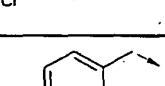
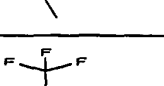
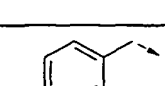
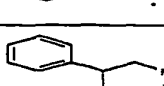
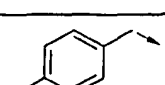
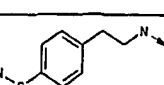
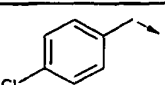
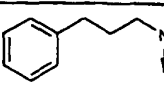


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|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1797 |  |  | 86,3 | 4,41 | 461,31 |
| 1798 |  |  | 85,1 | 4,95 | 505,33 |
| 1799 |  |  | 76,0 | 3,5 | 532,3 |
| 1800 |  |  | 81,1 | 4,87 | 483,34 |
| 1801 |  |  | 68,62 | 3,96 | 387,33 |
| 1802 |  |  | 73,4 | 4,39 | 389,33 |
| 1803 |  |  | 81,2 | 2,57 | 416,32 |
| 1804 |  |  | 79,2 | 2,9 | 478,3 |
| 1805 |  |  | 83,2 | 4,26 | 495,34 |
| 1806 |  |  | 70,2 | 2,5 | 410,3 |
| 1807 |  |  | 73,3 | 3,6 | 460,37 |
| 1808 |  |  | 75,0 | 5,01 | 478,39 |

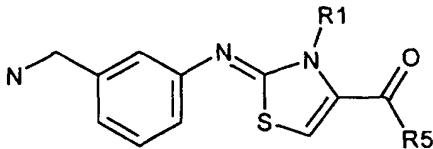
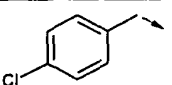
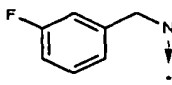
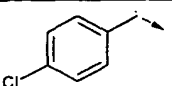
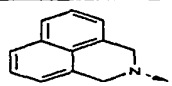
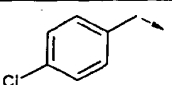
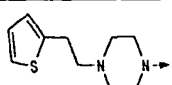
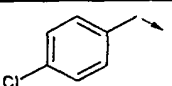
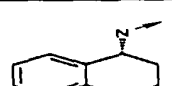
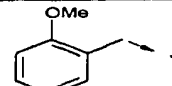
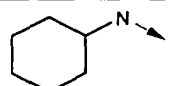
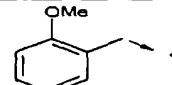
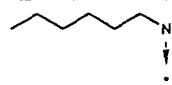
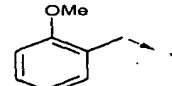
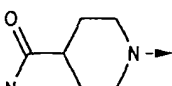
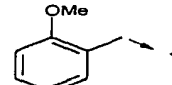
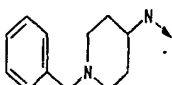
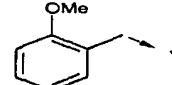
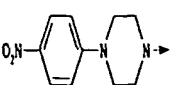
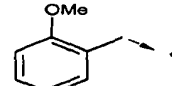
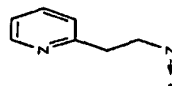
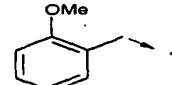
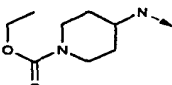
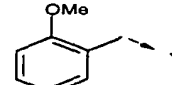
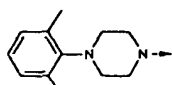
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1809 |  |  | 70,3 | 4,45 | 463,31 |
| 1810 |  |  | 83,9 | 4,73 | 485,37 |
| 1811 |  |  | 76,5 | 3,14 | 488,31 |
| 1812 |  |  | 79,1 | 4,28 | 423,35 |
| 1813 |  |  | 79,2 | 3,99 | 413,29 |
| 1814 |  |  | 75,5 | 4,55 | 457,33 |
| 1815 |  |  | 67,7 | 3,1 | 484,3 |
| 1816 |  |  | 62,7 | 4,44 | 435,33 |
| 1817 |  |  | 85,7 | 5,02 | 471,33 |
| 1818 |  |  | 70,2 | 5,31 | 473,37 |
| 1819 |  |  | 86,6 | 3,59 | 500,35 |
| 1820 |  |  | 83,8 | 3,7 | 562,4 |

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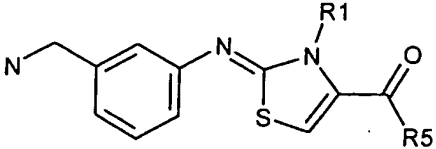
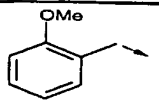
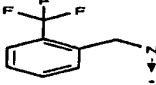
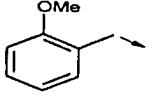
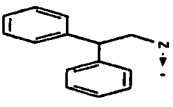
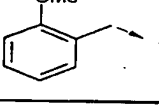
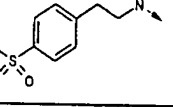
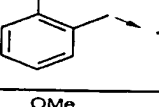
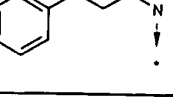
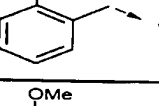
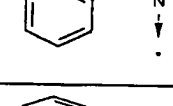
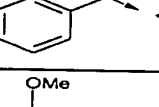
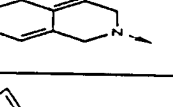
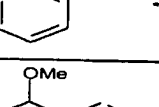
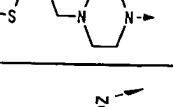
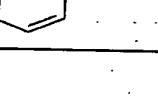
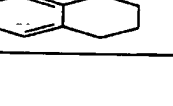
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|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1821 |  |  | 88,5 | 5,04 | 579,32 |
| 1822 |  |  | 39,8 | 3,3 | 494,3 |
| 1823 |  |  | 85,8 | 4,55 | 544,33 |
| 1824 |  |  | 86,4 | 5,78 | 562,36 |
| 1825 |  |  | 84,3 | 5,27 | 547,25 |
| 1826 |  |  | 69,7 | 5,58 | 569,32 |
| 1827 |  |  | 70,3 | 4,17 | 572,27 |
| 1828 |  |  | 85,4 | 5,17 | 507,34 |
| 1829 |  |  | 82,3 | 4,91 | 497,28 |
| 1830 |  |  | 82,4 | 5,41 | 541,29 |
| 1831 |  |  | 79,4 | 3,8 | 568,3 |
| 1832 |  |  | 86,9 | 5,31 | 519,33 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1833 |  |  | 86,3 | 4,99 | 455,27 |
| 1834 |  |  | 84,5 | 5,3 | 457,30 |
| 1835 |  |  | 88,3 | 3,42 | 484,27 |
| 1836 |  |  | 83,6 | 3,65 | 546,29 |
| 1837 |  |  | 88,8 | 4,91 | 563,24 |
| 1838 |  |  | 65,2 | 3,3 | 478,24 |
| 1839 |  |  | 87,6 | 4,5 | 528,30 |
| 1840 |  |  | 90,4 | 5,68 | 546,30 |
| 1841 |  |  | 82,8 | 5,31 | 531,23 |
| 1842 |  |  | 68,2 | 5,57 | 553,28 |
| 1843 |  |  | 72,4 | 4,11 | 556,21 |
| 1844 |  |  | 83,9 | 5,15 | 491,29 |

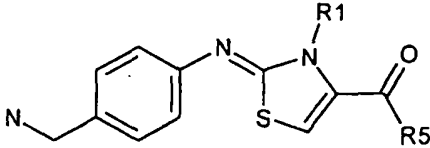
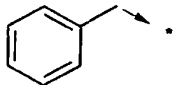
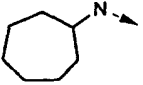
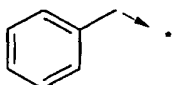
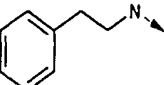
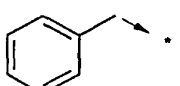
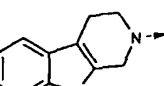
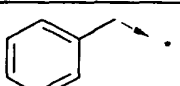
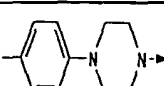
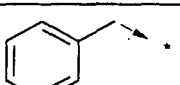
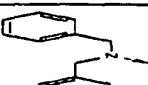
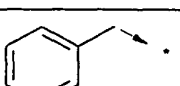
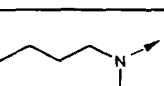
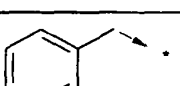
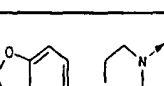
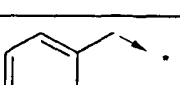
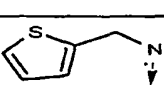
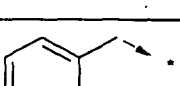
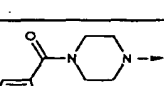
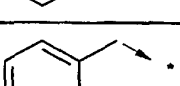
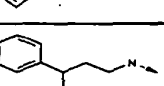
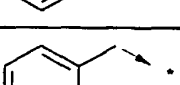
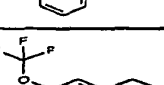
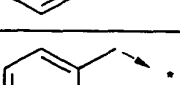
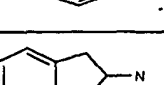
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|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1845 |  |  | 86,4 | 4,93 | 481,27 |
| 1846 |  |  | 86,3 | 5,29 | 525,25 |
| 1847 |  |  | 82,6 | 3,7 | 552,3 |
| 1848 |  |  | 88,1 | 5,3 | 503,29 |
| 1849 |  |  | 82,9 | 4,25 | 451,32 |
| 1850 |  |  | 82,1 | 4,64 | 453,35 |
| 1851 |  |  | 85,6 | 2,72 | 480,33 |
| 1852 |  |  | 82,9 | 3,16 | 542,35 |
| 1853 |  |  | 87,7 | 4,28 | 559,29 |
| 1854 |  |  | 75,3 | 2,82 | 474,33 |
| 1855 |  |  | 84,4 | 3,83 | 524,32 |
| 1856 |  |  | 87,0 | 5,0 | 542,36 |

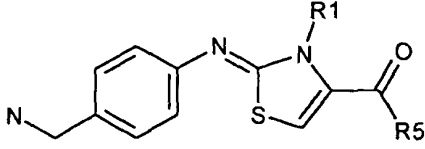
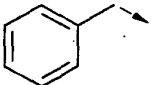
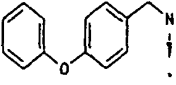
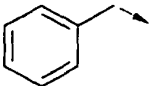
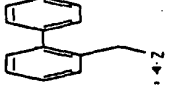
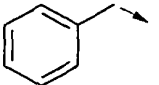
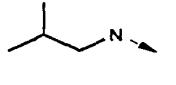
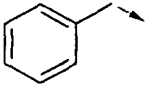
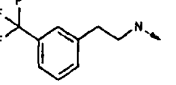
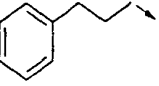
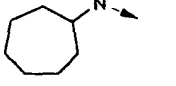
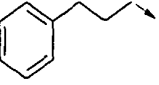
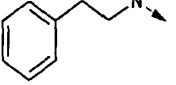
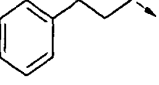
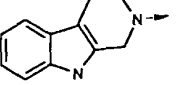
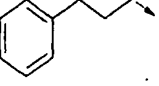
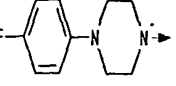
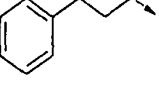

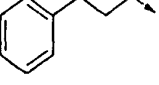
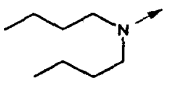
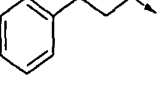
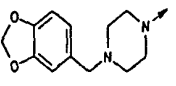
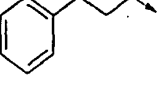

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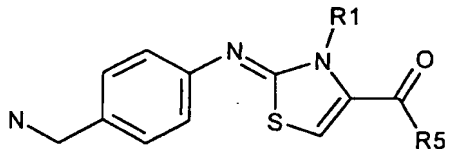
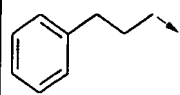
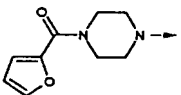
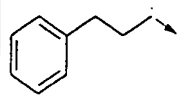
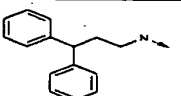
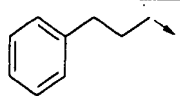
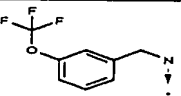
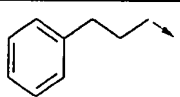
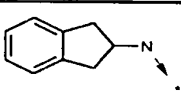
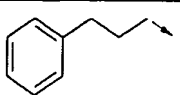
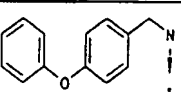
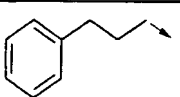
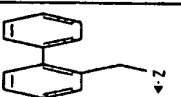
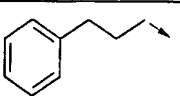
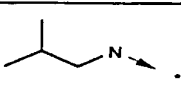
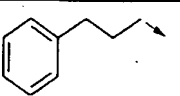
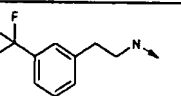
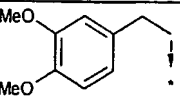
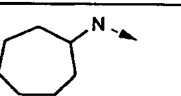
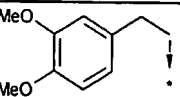
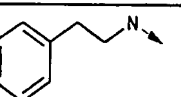
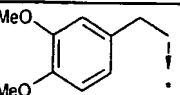
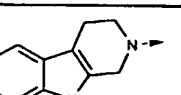
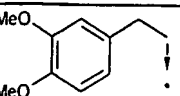
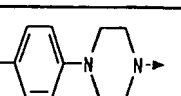
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1857 |  |  | 82,6 | 4,73 | 527,28 |
| 1858 |  |  | 65,8 | 5,01 | 549,31 |
| 1859 |  |  | 76,4 | 3,49 | 552,26 |
| 1860 |  |  | 80,4 | 4,54 | 487,35 |
| 1861 |  |  | 81,3 | 4,28 | 477,30 |
| 1862 |  |  | 79,9 | 4,59 | 521,29 |
| 1863 |  |  | 77,5 | 3,2 | 548,3 |
| 1864 |  |  | 86,5 | 4,65 | 499,32 |

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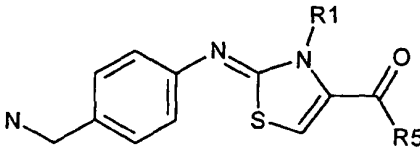
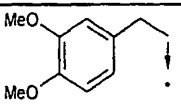
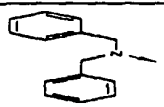
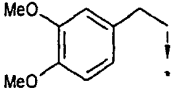
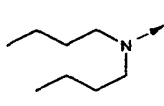
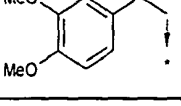
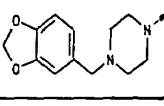
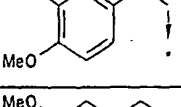

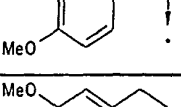
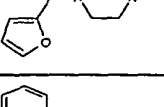
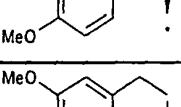
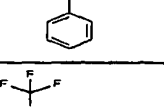
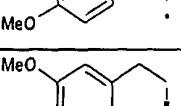
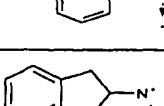
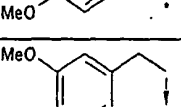
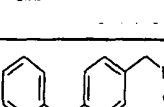
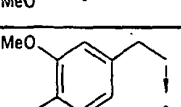

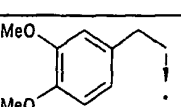
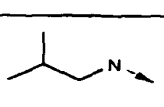
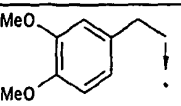
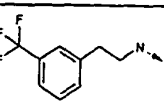


|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1865 |  |  | 84,7 | 4,94 | 435,29 |
| 1866 |  |  | 85,0 | 4,66 | 443,26 |
| 1867 |  |  | 26,2 | 4,82 | 494,26 |
| 1868 |  |  | 88,4 | 4,8 | 502,28 |
| 1869 |  |  | 83,6 | 5,48 | 519,28 |
| 1870 |  |  | 63,17 | 5,3 | 451,33 |
| 1871 |  |  | 91,1 | 3,4 | 542,3 |
| 1872 |  |  | 35,7 | 4,48 | 435,20 |
| 1873 |  |  | 88,8 | 3,8 | 502,26 |
| 1874 |  |  | 87,1 | 5,41 | 533,29 |
| 1875 |  |  | 89,5 | 5,14 | 513,22 |
| 1876 |  |  | 47,8 | 4,82 | 455,24 |

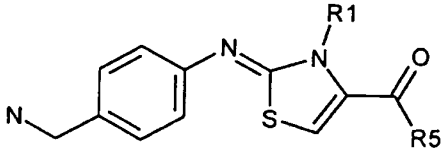
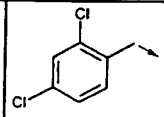
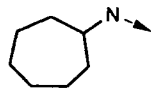
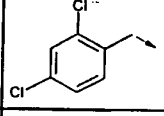
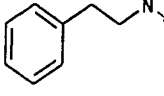
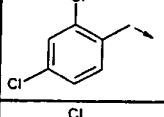
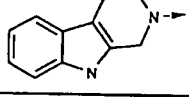
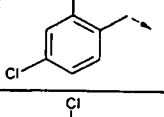
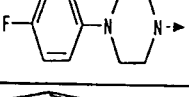
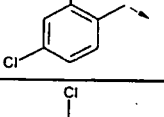

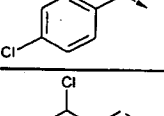
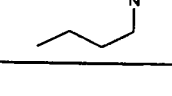
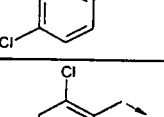
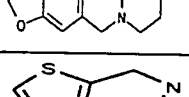
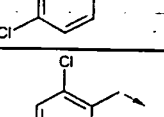
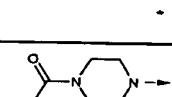
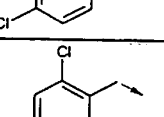
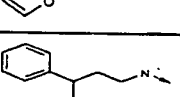
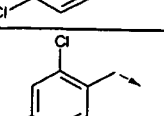
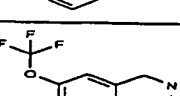
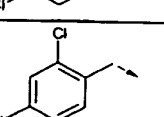
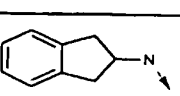


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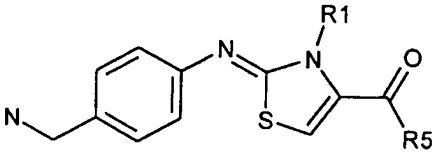
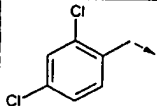
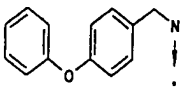
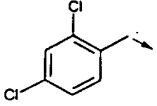
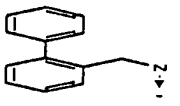
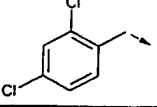
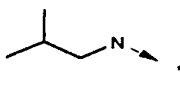
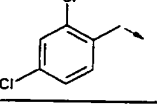
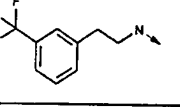

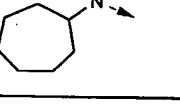
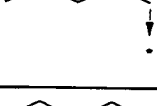
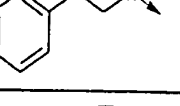

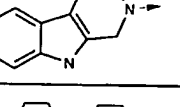
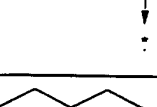
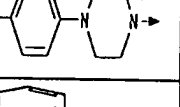
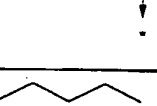

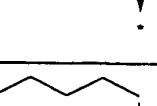
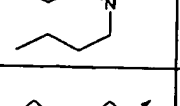
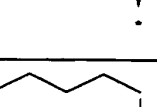
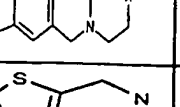

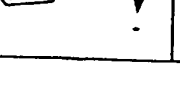
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1877 |  |  | 77,1 | 5,32 | 521,24 |
| 1878 |  |  | 81,8 | 5,31 | 505,26 |
| 1879 |  |  | 19,7 | 4,37 | 395,24 |
| 1880 |  |  | 61,4 | 5,14 | 511,22 |
| 1881 |  |  | 82,7 | 4,95 | 463,31 |
| 1882 |  |  | 82,2 | 4,71 | 471,27 |
| 1883 |  |  | 67,2 | 4,84 | 522,26 |
| 1884 |  |  | 87,7 | 4,9 | 530,28 |
| 1885 |  |  | 79,4 | 5,54 | 547,28 |
| 1886 |  |  | 80,8 | 5,3 | 479,34 |
| 1887 |  |  | 88,9 | 3,6 | 570,24 |
| 1888 |  |  | 30,2 | 4,53 | 463,23 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1889 |  |  | 88,9 | 3,98 | 530,26 |
| 1890 |  |  | 84,2 | 5,42 | 561,30 |
| 1891 |  |  | 75,8 | 5,17 | 541,22 |
| 1892 |  |  | 85,8 | 4,86 | 483,28 |
| 1893 |  |  | 71,7 | 5,33 | 549,26 |
| 1894 |  |  | 86,6 | 5,34 | 533,29 |
| 1895 |  |  | 54,1 | 4,43 | 423,28 |
| 1896 |  |  | 47,7 | 5,16 | 539,26 |
| 1897 |  |  | 74,6 | 4,44 | 509,30 |
| 1898 |  |  | 77,6 | 4,2 | 517,27 |
| 1899 |  |  | 38,8 | 4,53 | 568,26 |
| 1900 |  |  | 80,1 | 4,5 | 576,3 |

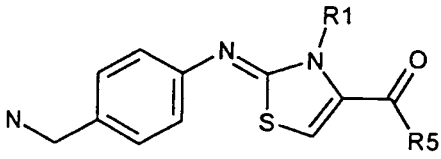
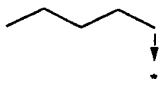
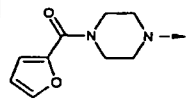
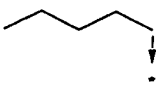
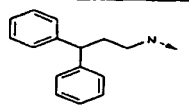
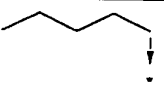
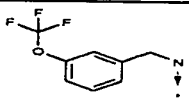
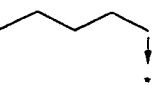
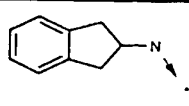
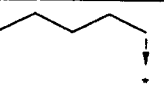
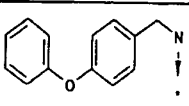
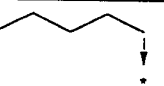
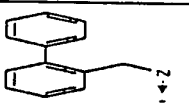
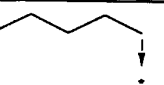
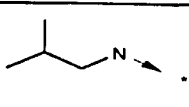
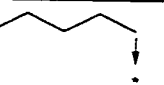
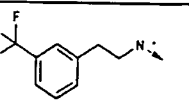
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|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1901 |  |  | 72,3 | 5,17 | 593,30 |
| 1902 |  |  | 77,0 | 4,88 | 525,34 |
| 1903 |  |  | 80,5 | 3,3 | 616,3 |
| 1904 |  |  | 34,6 | 4,03 | 509,21 |
| 1905 |  |  | 81,3 | 3,6 | 576,2 |
| 1906 |  |  | 77,1 | 5,04 | 607,31 |
| 1907 |  |  | 79,6 | 4,76 | 587,24 |
| 1908 |  |  | 77,8 | 4,38 | 529,28 |
| 1909 |  |  | 78,0 | 4,95 | 595,28 |
| 1910 |  |  | 81,1 | 4,88 | 579,29 |
| 1911 |  |  | 32,4 | 3,89 | 469,29 |
| 1912 |  |  | 49,3 | 4,7 | 585,26 |

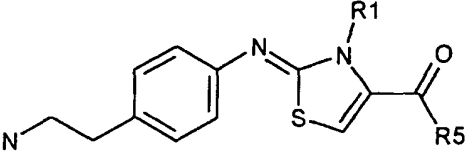
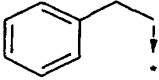
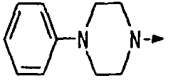
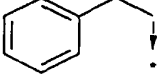
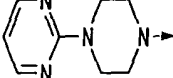
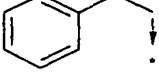
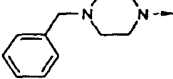
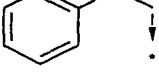
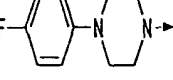
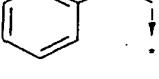
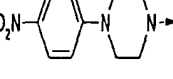
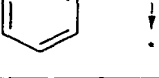
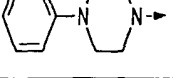
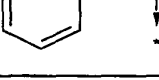
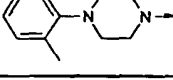
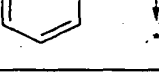

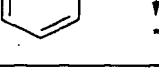

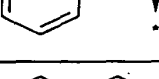
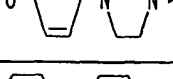
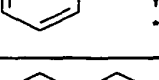
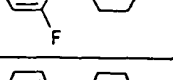

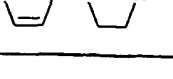
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1913 |  |  | 87,0 | 5,59 | 503,20 |
| 1914 |  |  | 88,5 | 5,3 | 511,15 |
| 1915 |  |  | 69,5 | 5,28 | 562,16 |
| 1916 |  |  | 89,4 | 5,3 | 570,1 |
| 1917 |  |  | 79,1 | 5,98 | 587,17 |
| 1918 |  |  | 82,4 | 5,84 | 519,23 |
| 1919 |  |  | 89,5 | 3,9 | 610,1 |
| 1920 |  |  | 27,2 | 5,12 | 503,11 |
| 1921 |  |  | 88,6 | 4,41 | 570,13 |
| 1922 |  |  | 86,4 | 5,91 | 601,19 |
| 1923 |  |  | 84,9 | 5,66 | 581,11 |
| 1924 |  |  | 86,4 | 5,44 | 523,13 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1925 |  |  | 61,9 | 5,81 | 589,16 |
| 1926 |  |  | 84,7 | 5,85 | 573,15 |
| 1927 |  |  | 36,8 | 5,1 | 463,16 |
| 1928 |  |  | 76,4 | 5,68 | 579,13 |
| 1929 |  |  | 79,4 | 4,65 | 415,30 |
| 1930 |  |  | 84,5 | 4,41 | 423,29 |
| 1931 |  |  | 44,0 | 4,62 | 474,29 |
| 1932 |  |  | 86,1 | 4,65 | 482,3 |
| 1933 |  |  | 78,5 | 5,33 | 499,31 |
| 1934 |  |  | 79,6 | 5,06 | 431,33 |
| 1935 |  |  | 84,6 | 3,4 | 522,30 |
| 1936 |  |  | 54,6 | 4,2 | 415,21 |

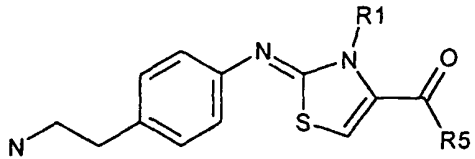
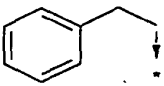
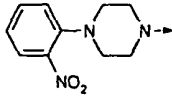
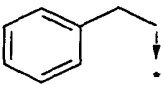
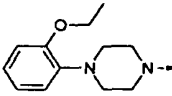
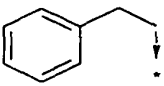
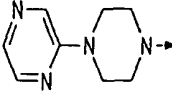
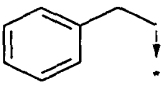
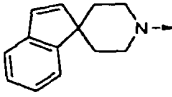
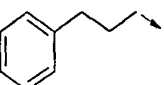
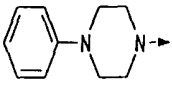
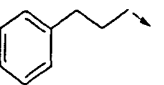
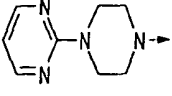
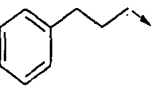
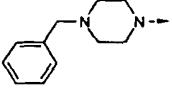
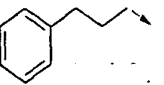
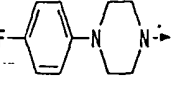
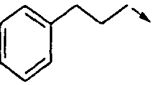
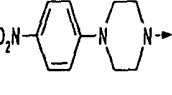
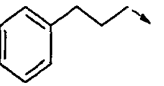
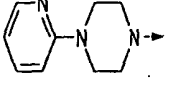
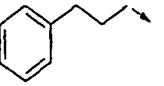
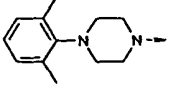
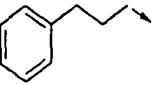
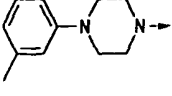
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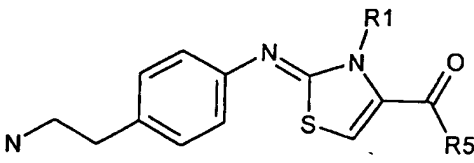
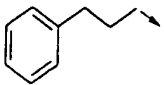
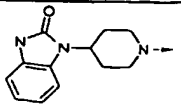
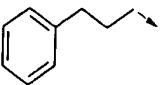
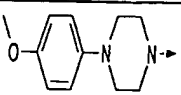
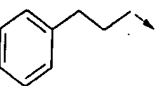
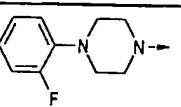
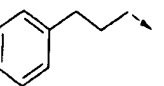
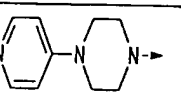
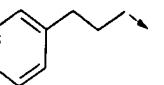
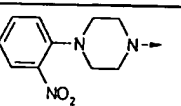
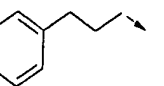
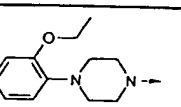
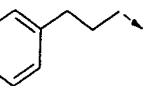
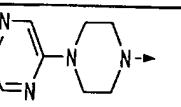
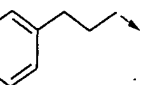
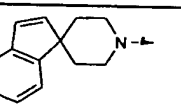
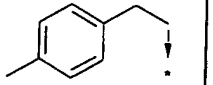
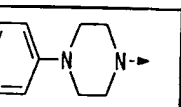
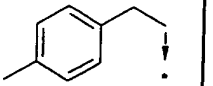
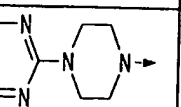
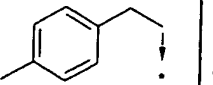
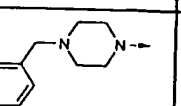
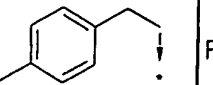
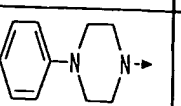
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1937 |  |  | 85,4 | 3,7 | 482,29 |
| 1938 |  |  | 83,5 | 5,21 | 513,32 |
| 1939 |  |  | 85,7 | 4,92 | 493,24 |
| 1940 |  |  | 83,0 | 4,58 | 435,29 |
| 1941 |  |  | 75,1 | 5,1 | 501,31 |
| 1942 |  |  | 88,2 | 5,1 | 485,31 |
| 1943 |  |  | 76,1 | 4,08 | 375,28 |
| 1944 |  |  | 81,1 | 4,9 | 491,28 |

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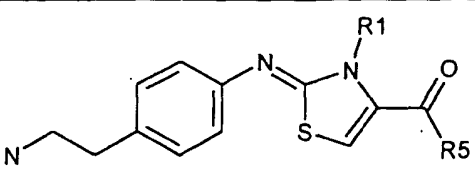
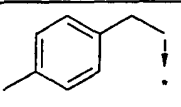
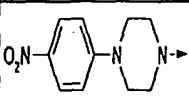
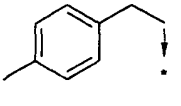
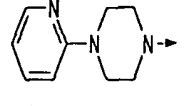
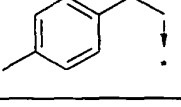
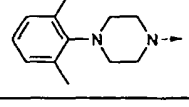
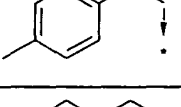
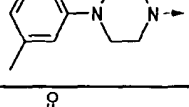
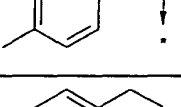
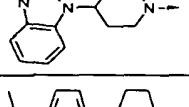
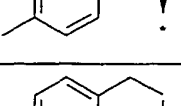
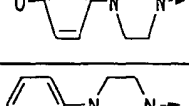
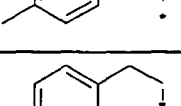
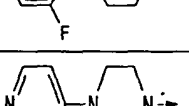
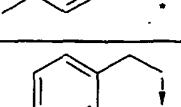
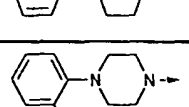
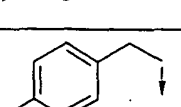
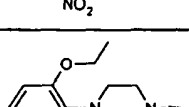
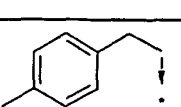
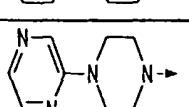
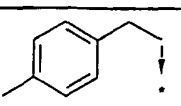
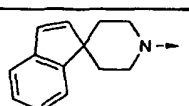


|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1945 |  |  | 84,3 | 4,24 | 512,26 |
| 1946 |  |  | 85,4 | 3,63 | 514,25 |
| 1947 |  |  | 86,8 | 3,1 | 526,27 |
| 1948 |  |  | 87,7 | 4,32 | 530,23 |
| 1949 |  |  | 87,5 | 4,24 | 557,23 |
| 1950 |  |  | 88,8 | 2,9 | 513,26 |
| 1951 |  |  | 84,5 | 4,92 | 540,28 |
| 1952 |  |  | 87,7 | 4,49 | 526,27 |
| 1953 |  |  | 62,5 | 3,66 | 567,26 |
| 1954 |  |  | 89 | 4,08 | 542,26 |
| 1955 |  |  | 87,7 | 4,38 | 530,24 |
| 1956 |  |  | 82,4 | 2,7 | 513,28 |

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|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1957 |  |  | 87,7 | 4,31 | 557,23 |
| 1958 |  |  | 91,0 | 4,44 | 556,27 |
| 1959 |  |  | 80,7 | 3,44 | 514,25 |
| 1960 |  |  | 68,6 | 4,67 | 535,24 |
| 1961 |  |  | 85,3 | 4,32 | 526,27 |
| 1962 |  |  | 83,0 | 3,75 | 528,25 |
| 1963 |  |  | 88,7 | 3,28 | 540,28 |
| 1964 |  |  | 86,8 | 4,37 | 544,25 |
| 1965 |  |  | 89,4 | 4,29 | 571,24 |
| 1966 |  |  | 86,9 | 3,1 | 527,25 |
| 1967 |  |  | 86,1 | 4,94 | 554,29 |
| 1968 |  |  | 87,6 | 4,54 | 540,27 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1969 |  |  | 65,4 | 3,76 | 581,27 |
| 1970 |  |  | 86,3 | 4,16 | 556,28 |
| 1971 |  |  | 86,0 | 4,43 | 544,25 |
| 1972 |  |  | 83,2 | 2,8 | 527,3 |
| 1973 |  |  | 84,8 | 4,38 | 571,24 |
| 1974 |  |  | 87,8 | 4,5 | 570,28 |
| 1975 |  |  | 80,9 | 3,55 | 528,26 |
| 1976 |  |  | 62,7 | 4,71 | 549,27 |
| 1977 |  |  | 85,7 | 4,41 | 526,29 |
| 1978 |  |  | 84,2 | 3,82 | 528,27 |
| 1979 |  |  | 87,4 | 3,28 | 540,28 |
| 1980 |  |  | 86,6 | 4,47 | 544,24 |

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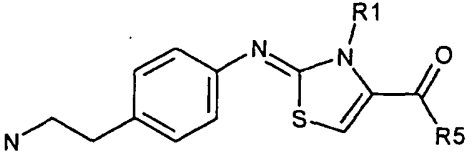
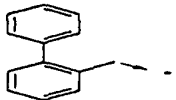
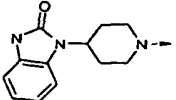
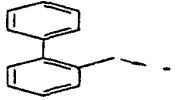
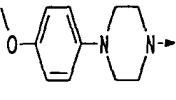
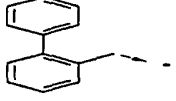
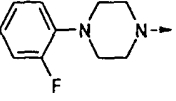
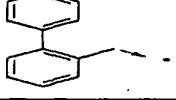
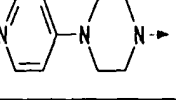
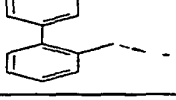
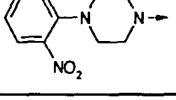
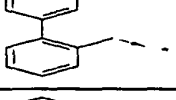
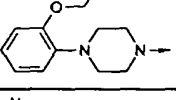
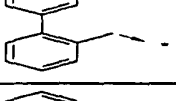
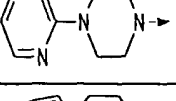
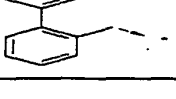
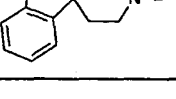
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 1981 |  |  | 86,4 | 4,38 | 571,24 |
| 1982 |  |  | 85,9 | 3,1 | 527,27 |
| 1983 |  |  | 85,3 | 5,06 | 554,28 |
| 1984 |  |  | 85,3 | 4,66 | 540,28 |
| 1985 |  |  | 60,8 | 3,8 | 581,28 |
| 1986 |  |  | 86,1 | 4,25 | 556,28 |
| 1987 |  |  | 86,4 | 4,54 | 544,25 |
| 1988 |  |  | 75,9 | 2,86 | 527,28 |
| 1989 |  |  | 86,5 | 4,46 | 571,24 |
| 1990 |  |  | 88,4 | 4,6 | 570,29 |
| 1991 |  |  | 79,8 | 3,62 | 528,27 |
| 1992 |  |  | 63,2 | 4,82 | 549,26 |

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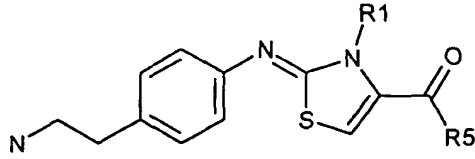
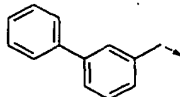
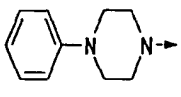
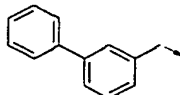
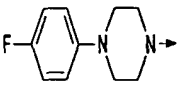
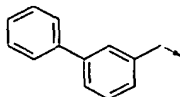
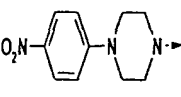
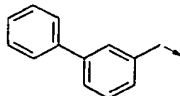
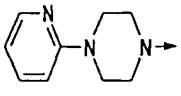
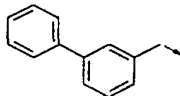
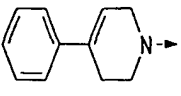
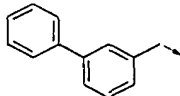
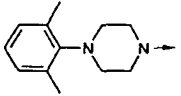
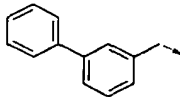
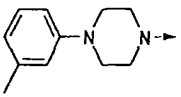
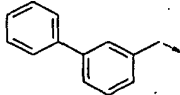
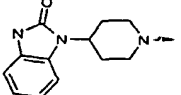
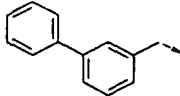
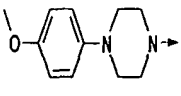
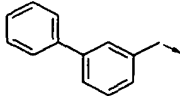
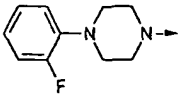
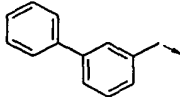
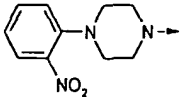
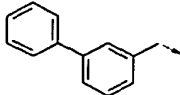
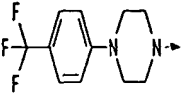
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
|------|----|----|------------|-----------|--------------------|
| 1993 | | | 81,8 | 4,15 | 572,25 |
| 1994 | | | 81,0 | 3,58 | 574,25 |
| 1995 | | | 83,5 | 3,08 | 586,3 |
| 1996 | | | 84,3 | 4,2 | 590,27 |
| 1997 | | | 85,3 | 4,12 | 617,26 |
| 1998 | | | 86,1 | 2,91 | 573,28 |
| 1999 | | | 85,5 | 4,74 | 600,31 |
| 2000 | | | 87,3 | 4,37 | 586,28 |
| 2001 | | | 68,4 | 3,6 | 627,28 |
| 2002 | | | 85,4 | 3,98 | 602,28 |
| 2003 | | | 83,1 | 4,26 | 590,27 |
| 2004 | | | 84,5 | 2,7 | 573,26 |

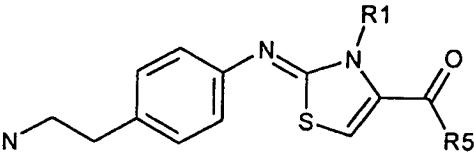
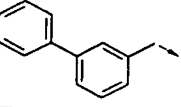
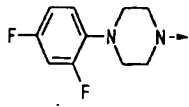
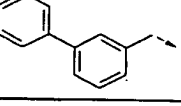
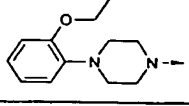
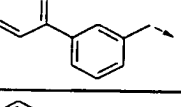
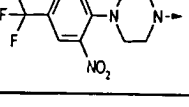
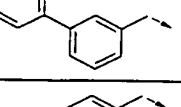
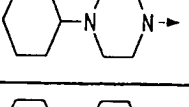
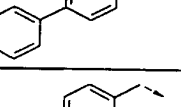
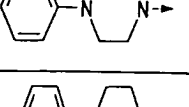
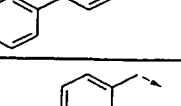

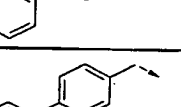
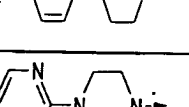
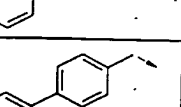
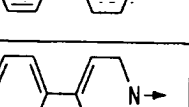
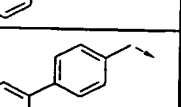
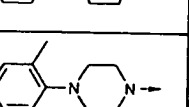
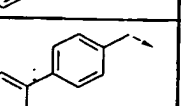
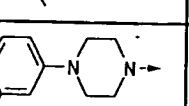
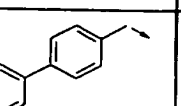
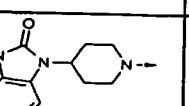


| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
|------|----|----|------------|-----------|--------------------|
| 2005 | | | 85,9 | 4,2 | 617,27 |
| 2006 | | | 86,9 | 4,32 | 616,31 |
| 2007 | | | 81,2 | 3,4 | 574,24 |
| 2008 | | | 69,0 | 4,54 | 595,29 |
| 2009 | | | 82,1 | 4,72 | 574,25 |
| 2010 | | | 80,1 | 4,15 | 576,27 |
| 2011 | | | 83,9 | 3,53 | 588,27 |
| 2012 | | | 80,8 | 4,78 | 592,26 |
| 2013 | | | 83,0 | 4,68 | 619,26 |
| 2014 | | | 85,6 | 3,35 | 575,25 |
| 2015 | | | 82,9 | 5,41 | 602,30 |
| 2016 | | | 81,9 | 4,96 | 588,26 |

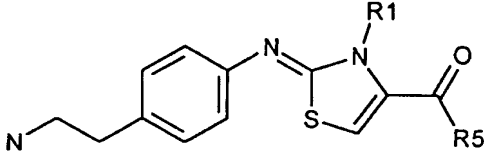
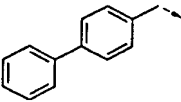
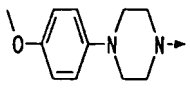
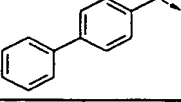
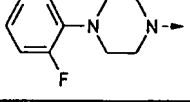
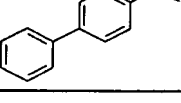
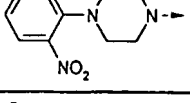
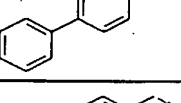
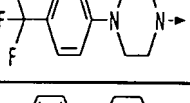
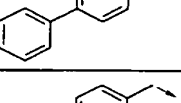
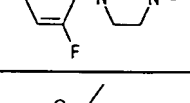
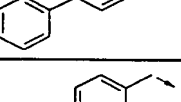
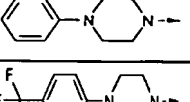
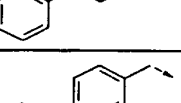
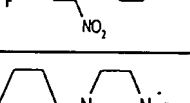
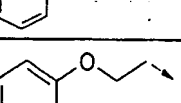
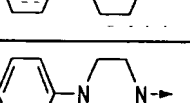
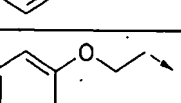
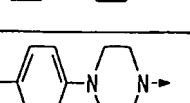
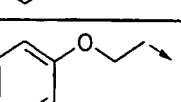
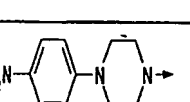
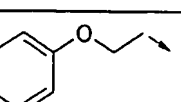
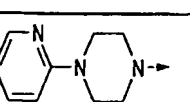


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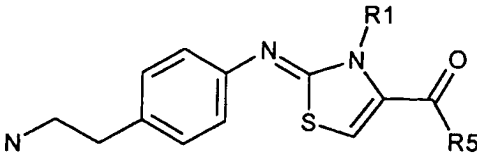
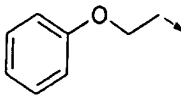
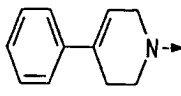
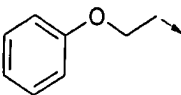
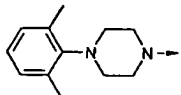
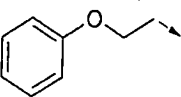
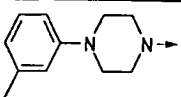
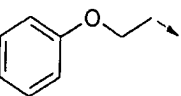
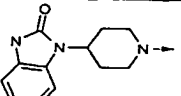
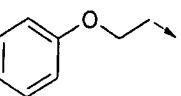
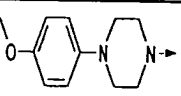
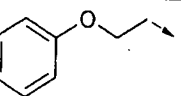
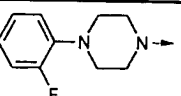
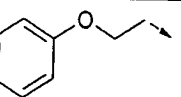
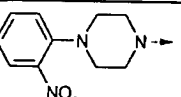
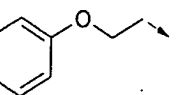
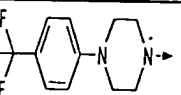
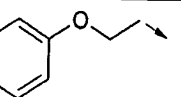
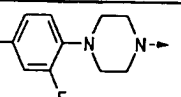
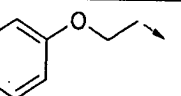
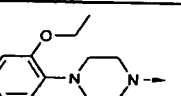
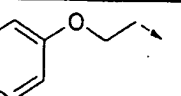
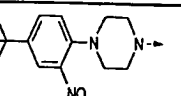
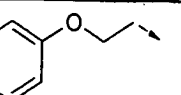
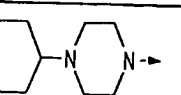
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2017 |  |  | 58,6 | 4,09 | 629,29 |
| 2018 |  |  | 81,7 | 4,53 | 604,27 |
| 2019 |  |  | 81,4 | 4,84 | 592,26 |
| 2020 |  |  | 78,7 | 3,06 | 575,31 |
| 2021 |  |  | 83,9 | 4,74 | 619,25 |
| 2022 |  |  | 82,6 | 4,89 | 618,29 |
| 2023 |  |  | 79,5 | 3,9 | 576,27 |
| 2024 |  |  | 64,2 | 5,15 | 597,27 |

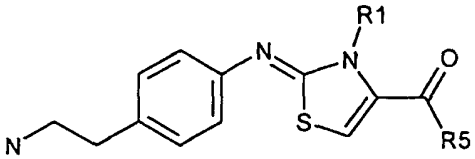
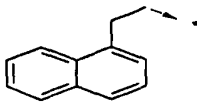
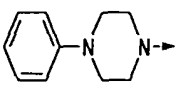
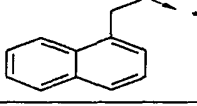
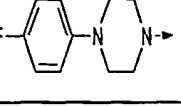
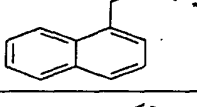
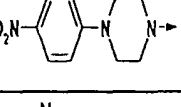
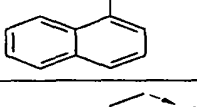
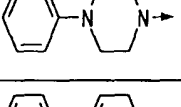
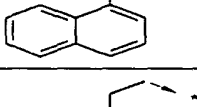
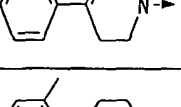
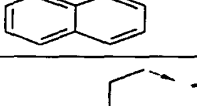
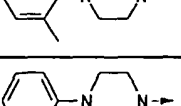
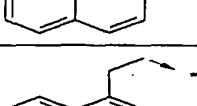
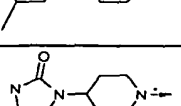
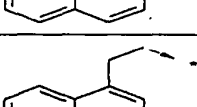
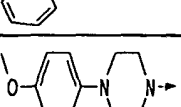
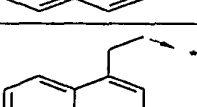
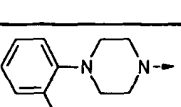
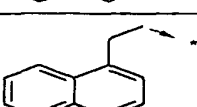
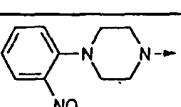
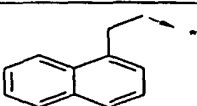
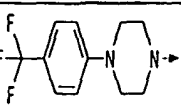


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|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2025 |  |  | 88,8 | 4,94 | 574,23 |
| 2026 |  |  | 88,4 | 4,96 | 592,25 |
| 2027 |  |  | 87,7 | 4,86 | 619,24 |
| 2028 |  |  | 89,7 | 3,61 | 575,2 |
| 2029 |  |  | 70,4 | 5,13 | 571,25 |
| 2030 |  |  | 88,0 | 5,58 | 602,28 |
| 2031 |  |  | 87,8 | 5,15 | 588,26 |
| 2032 |  |  | 76,5 | 4,24 | 629,28 |
| 2033 |  |  | 88,8 | 4,7 | 604,27 |
| 2034 |  |  | 88,3 | 5,04 | 592,25 |
| 2035 |  |  | 89,5 | 4,96 | 619,24 |
| 2036 |  |  | 87,5 | 5,41 | 642,26 |

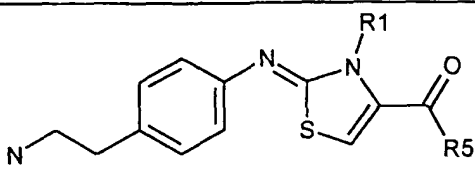
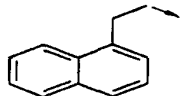
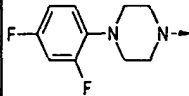
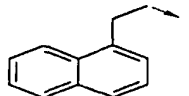
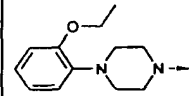
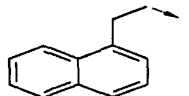
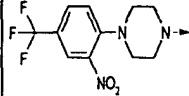
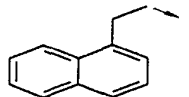
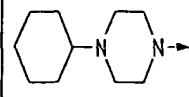
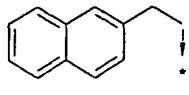
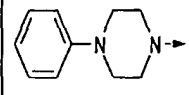
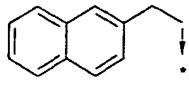
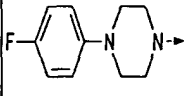
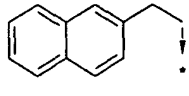
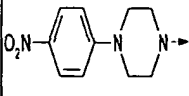
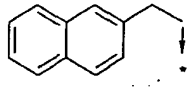
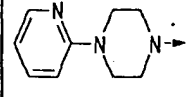
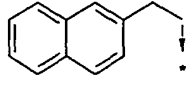
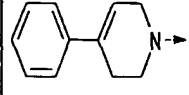
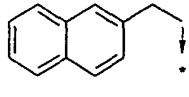
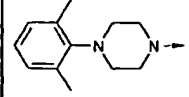
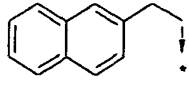
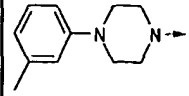
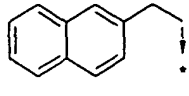
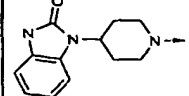
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2037 |  |  | 88,9 | 5,12 | 610,24 |
| 2038 |  |  | 89,4 | 5,07 | 618,27 |
| 2039 |  |  | 88,7 | 5,42 | 687,24 |
| 2040 |  |  | 87,7 | 3,68 | 580,30 |
| 2041 |  |  | 85,2 | 4,89 | 574,23 |
| 2042 |  |  | 84,4 | 4,9 | 592,25 |
| 2043 |  |  | 84,7 | 4,78 | 619,23 |
| 2044 |  |  | 89,0 | 3,58 | 575,25 |
| 2045 |  |  | 61,5 | 5,16 | 571,22 |
| 2046 |  |  | 83,2 | 5,57 | 602,28 |
| 2047 |  |  | 84,4 | 5,1 | 588,25 |
| 2048 |  |  | 73,2 | 4,25 | 629,27 |

|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2049 |  |  | 85,5 | 4,64 | 604,26 |
| 2050 |  |  | 85,6 | 4,99 | 592,2 |
| 2051 |  |  | 85,7 | 4,93 | 619,24 |
| 2052 |  |  | 86,2 | 5,34 | 642,25 |
| 2053 |  |  | 85,1 | 5,06 | 610,23 |
| 2054 |  |  | 84,6 | 5,06 | 618,27 |
| 2055 |  |  | 85,4 | 5,37 | 687,23 |
| 2056 |  |  | 85,8 | 3,68 | 580,30 |
| 2057 |  |  | 68,0 | 4,37 | 528,26 |
| 2058 |  |  | 86,3 | 4,41 | 546,22 |
| 2059 |  |  | 88,1 | 4,32 | 573,19 |
| 2060 |  |  | 86,1 | 3 | 529,25 |

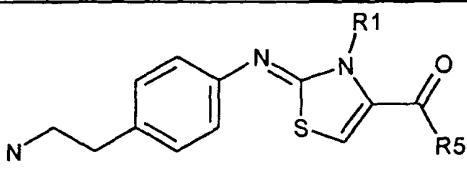
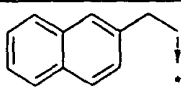
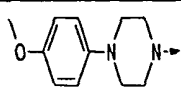
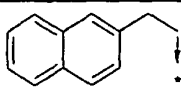
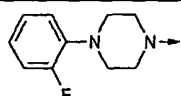
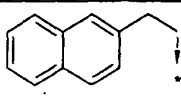
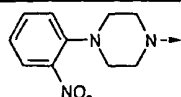
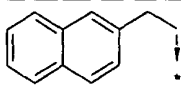
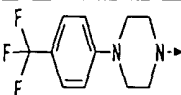
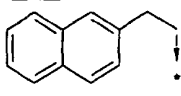
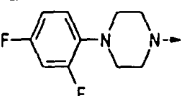
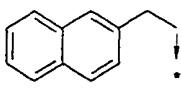
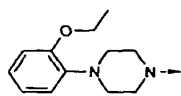
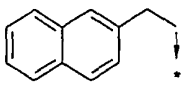
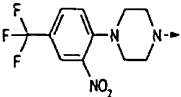
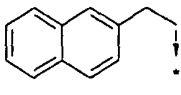
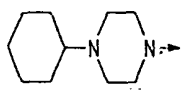
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2061 |  |  | 67,2 | 4,56 | 525,25 |
| 2062 |  |  | 91,2 | 4,98 | 556,26 |
| 2063 |  |  | 87,8 | 4,56 | 542,26 |
| 2064 |  |  | 75,6 | 3,73 | 583,23 |
| 2065 |  |  | 88,7 | 4,16 | 558,23 |
| 2066 |  |  | 88,4 | 4,46 | 546,22 |
| 2067 |  |  | 87,4 | 4,4 | 573,20 |
| 2068 |  |  | 87,7 | 4,88 | 596,21 |
| 2069 |  |  | 87,9 | 4,56 | 564,21 |
| 2070 |  |  | 87,5 | 4,51 | 572,26 |
| 2071 |  |  | 88,8 | 4,91 | 641,20 |
| 2072 |  |  | 86,2 | 3,08 | 534,27 |

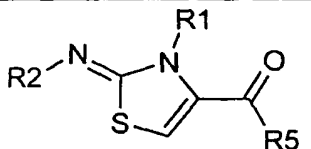
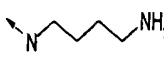

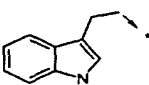
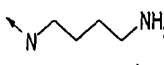

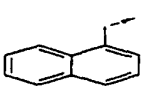
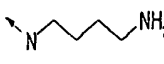

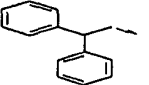
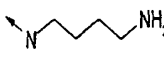

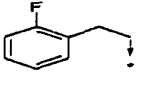


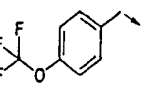
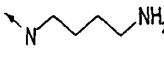

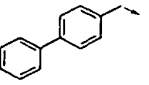
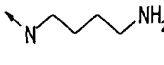

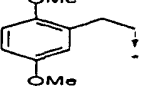
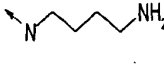

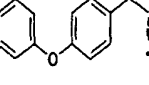
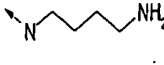


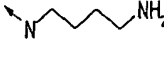

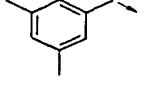
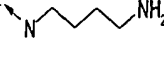

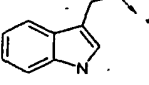
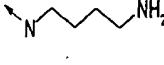

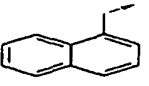
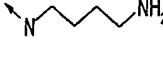

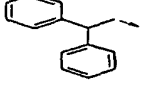
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2073 |  |  | 71,7 | 4,78 | 562,25 |
| 2074 |  |  | 82,1 | 4,8 | 580,23 |
| 2075 |  |  | 82,6 | 4,68 | 607,23 |
| 2076 |  |  | 79,5 | 3,4 | 563,21 |
| 2077 |  |  | 67,5 | 4,92 | 559,23 |
| 2078 |  |  | 83,0 | 5,39 | 590,27 |
| 2079 |  |  | 82,5 | 4,98 | 576,26 |
| 2080 |  |  | 42,5 | 4,1 | 617,23 |
| 2081 |  |  | 86,9 | 4,58 | 592,26 |
| 2082 |  |  | 82,5 | 4,88 | 580,23 |
| 2083 |  |  | 81,4 | 4,77 | 607,23 |
| 2084 |  |  | 82,3 | 5,24 | 630,26 |

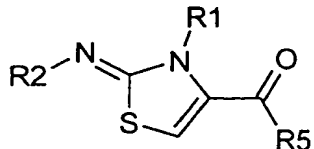

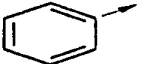
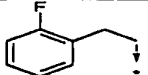
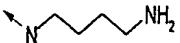
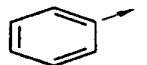
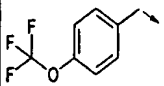
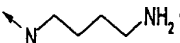
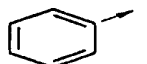
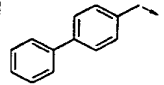
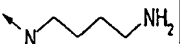
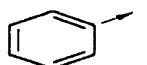
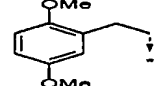
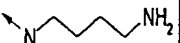
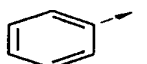
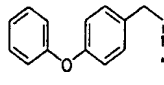

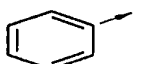

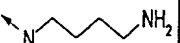
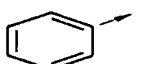


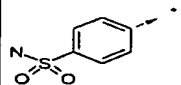
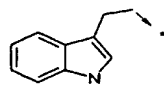

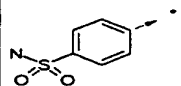
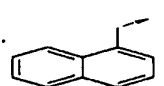
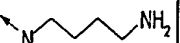
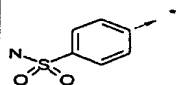
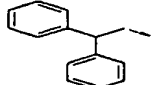

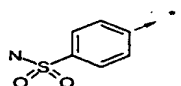
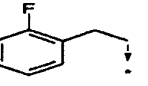
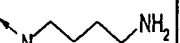
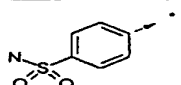
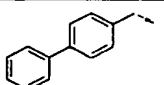

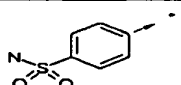
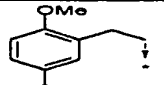
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|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2085 |  |  | 83,5 | 4,97 | 598,20 |
| 2086 |  |  | 81,6 | 4,93 | 606,28 |
| 2087 |  |  | 82,7 | 5,25 | 675,23 |
| 2088 |  |  | 84,4 | 3,4 | 568,26 |
| 2089 |  |  | 67,0 | 4,64 | 562,24 |
| 2090 |  |  | 83,0 | 4,66 | 580,23 |
| 2091 |  |  | 83,6 | 4,54 | 607,22 |
| 2092 |  |  | 82,5 | 3,3 | 563,25 |
| 2093 |  |  | 84,2 | 4,8 | 559,22 |
| 2094 |  |  | 86,2 | 5,21 | 590,29 |
| 2095 |  |  | 83,2 | 4,82 | 576,28 |
| 2096 |  |  | 62,8 | 3,99 | 617,26 |

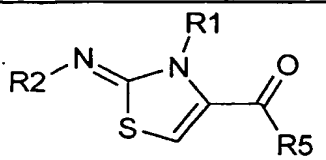
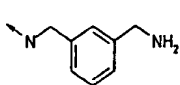
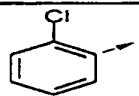
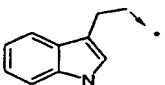
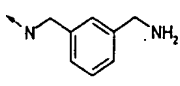
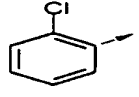
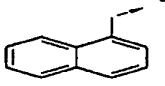
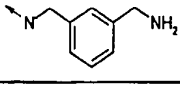
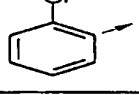
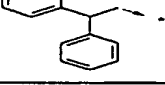
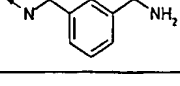
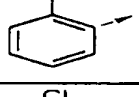
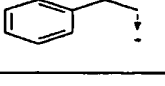
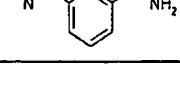
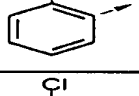
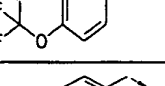
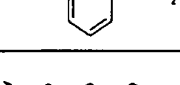
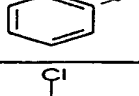

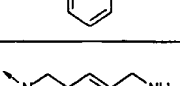
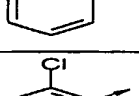
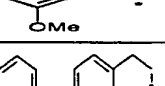
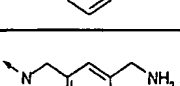
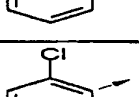
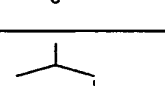
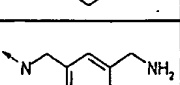
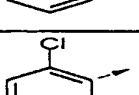
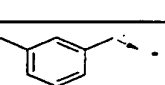
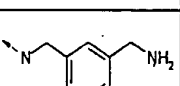
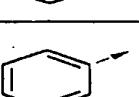
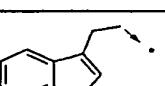
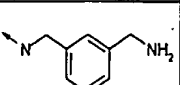
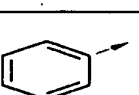
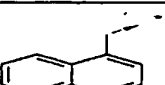
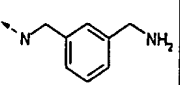
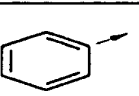
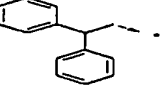



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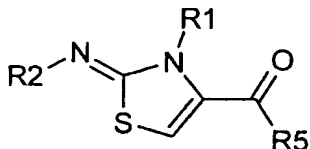
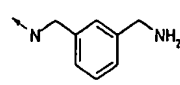
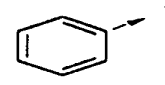
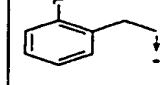
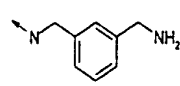
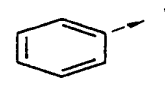
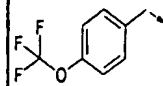
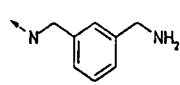
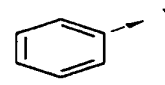
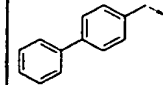
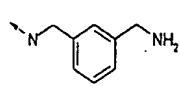
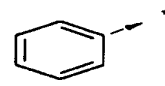
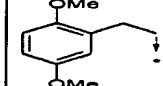
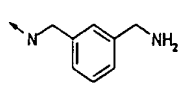
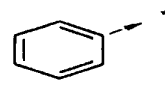
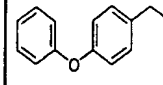
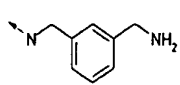
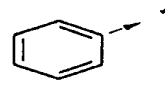
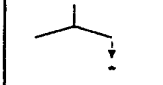
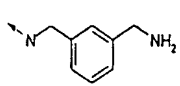
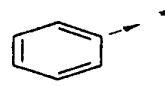
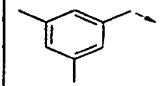
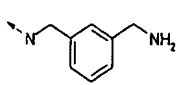
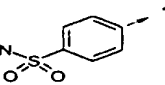
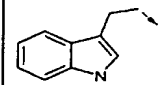
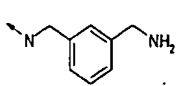
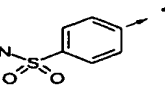
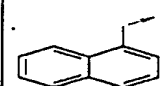
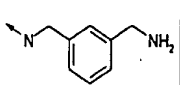
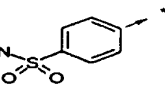
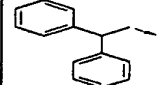
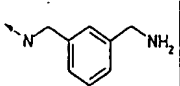
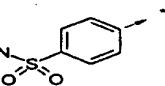
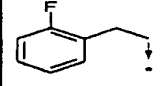
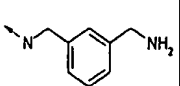
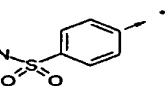
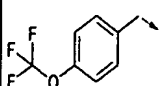
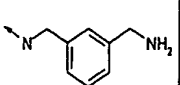
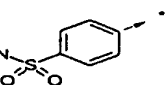
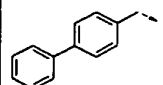
|  | | | | | |
|---|---|---|------------|-----------|--------------------|
| Ex. | R1 | R5 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2097 |  |  | 86,0 | 4,44 | 592,2 |
| 2098 |  |  | 85,8 | 4,72 | 580,25 |
| 2099 |  |  | 84,0 | 4,62 | 607,23 |
| 2100 |  |  | 83,4 | 5,09 | 630,26 |
| 2101 |  |  | 84,8 | 4,8 | 598,21 |
| 2102 |  |  | 83,7 | 4,78 | 606,29 |
| 2103 |  |  | 83,6 | 5,1 | 675,24 |
| 2104 |  |  | 5,6 | 3,05 | 568,28 |

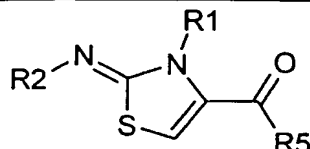
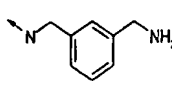
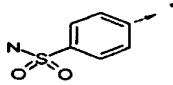
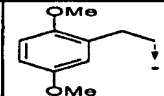
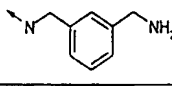
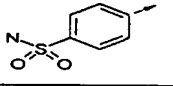
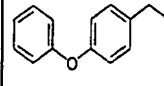
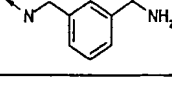
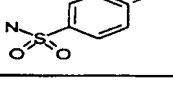

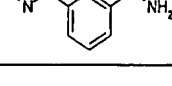
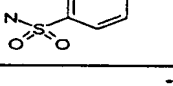
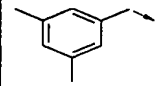
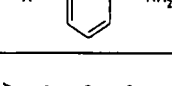
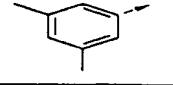
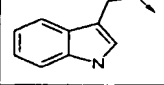
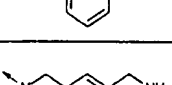
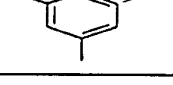
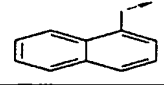
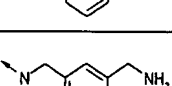
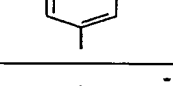
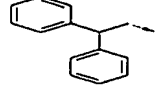
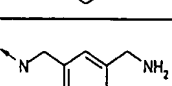
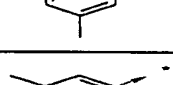
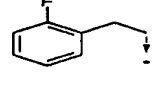
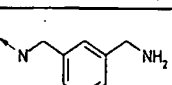
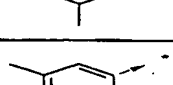
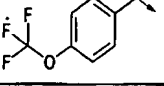
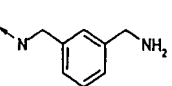
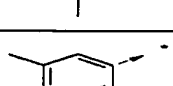
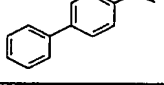
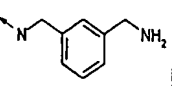
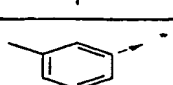
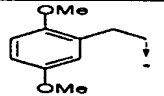
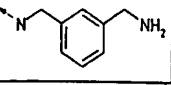
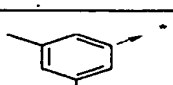
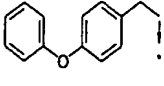



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|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2105 |  |  |  | 81,5 | 4,9 | 468,27 |
| 2106 |  |  |  | 81,4 | 5,01 | 465,28 |
| 2107 |  |  |  | 77,3 | 5,34 | 505,31 |
| 2108 |  |  |  | 73,5 | 4,7 | 447,29 |
| 2109 |  |  |  | 70,5 | 5,28 | 499,26 |
| 2110 |  |  |  | 73,9 | 5,38 | 491,30 |
| 2111 |  |  |  | 72,0 | 4,5 | 489,31 |
| 2112 |  |  |  | 73,0 | 5,5 | 521,29 |
| 2113 |  |  |  | 90,0 | 4,23 | 381,29 |
| 2114 |  |  |  | 76,1 | 5,02 | 443,30 |
| 2115 |  |  |  | 56,9 | 4,2 | 434,32 |
| 2116 |  |  |  | 79,8 | 4,29 | 431,31 |
| 2117 |  |  |  | 79,1 | 4,45 | 471,35 |

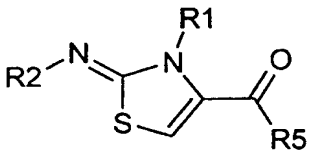
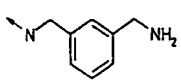
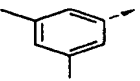
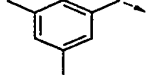
|  | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2118 |  |  |  | 70,2 | 3,56 | 413,29 |
| 2119 |  |  |  | 72,4 | 4,68 | 465,27 |
| 2120 |  |  |  | 78,3 | 4,66 | 457,33 |
| 2121 |  |  |  | 90,1 | 3,41 | 455,33 |
| 2122 |  |  |  | 82,2 | 4,38 | 487,36 |
| 2123 |  |  |  | 68,8 | 2,99 | 347,34 |
| 2124 |  |  |  | 75,2 | 4,13 | 409,33 |
| 2125 |  |  |  | 56,9 | 4,01 | 513,30 |
| 2126 |  |  |  | 70,1 | 3,88 | 510,29 |
| 2127 |  |  |  | 77,8 | 4,16 | 550,29 |
| 2128 |  |  |  | 67,7 | 3,49 | 492,28 |
| 2129 |  |  |  | 71 | 4,27 | 536,28 |
| 2130 |  |  |  | 71,4 | 3,38 | 534,30 |

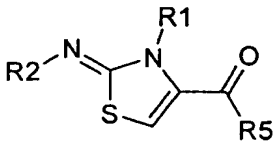
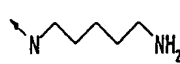
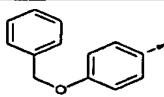
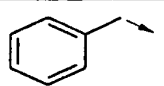
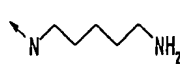
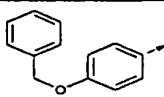
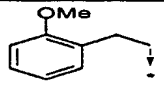
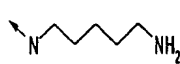
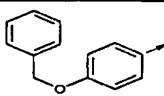
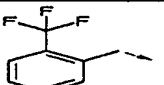
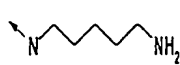
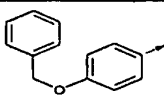
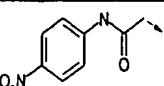
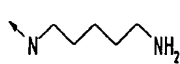
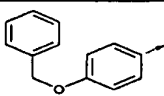
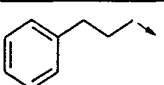
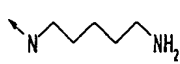
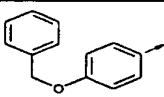
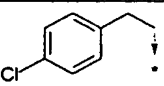
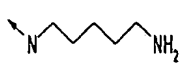
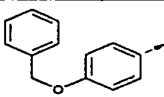
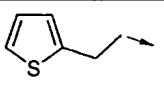
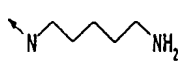
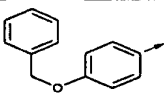
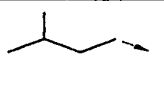
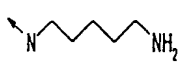
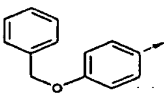
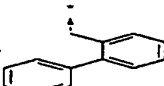
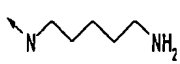
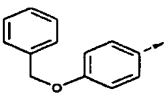
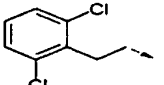
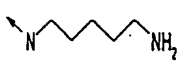
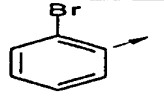
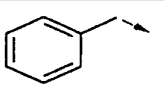
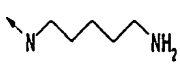
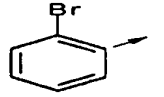
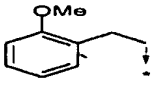
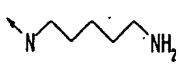
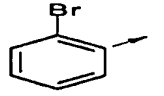
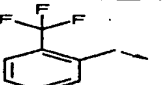
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
|------|----|----|----|------------|-----------|--------------------|
| 2131 | | | | 67,7 | 4,29 | 566,30 |
| 2132 | | | | 54,5 | 2,98 | 426,29 |
| 2133 | | | | 70,1 | 3,85 | 488,31 |
| 2134 | | | | 57,1 | 4,5 | 462,36 |
| 2135 | | | | 83,2 | 4,61 | 459,35 |
| 2136 | | | | 91,6 | 4,72 | 499,40 |
| 2137 | | | | 80,7 | 3,94 | 441,32 |
| 2138 | | | | 73,9 | 4,99 | 493,32 |
| 2139 | | | | 77,5 | 4,95 | 485,37 |
| 2140 | | | | 77,4 | 3,79 | 483,36 |
| 2141 | | | | 66,1 | 4,62 | 515,38 |
| 2142 | | | | 70,1 | 3,49 | 375,33 |
| 2143 | | | | 74,1 | 4,46 | 437,35 |

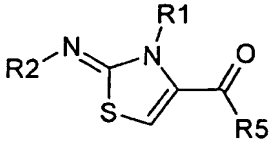
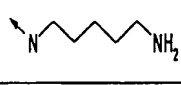
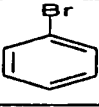
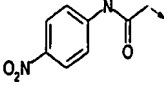
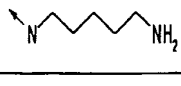
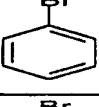
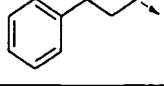
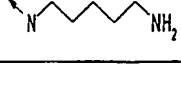
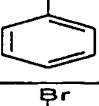
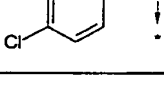
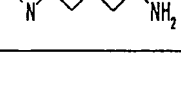
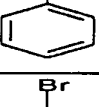
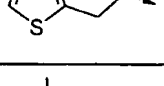
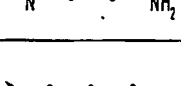
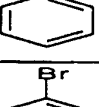

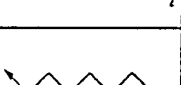
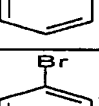
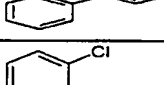
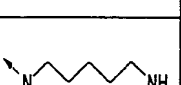
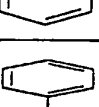
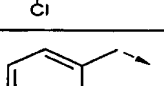
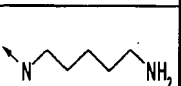
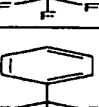
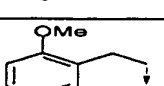
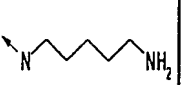
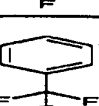
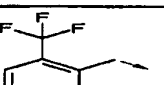
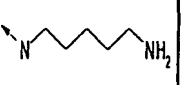
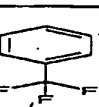
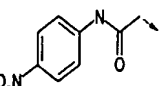
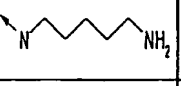
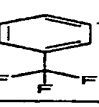
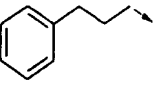
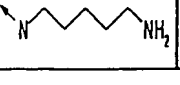
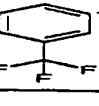
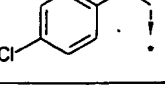



|  | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2144 |  |  |  | 93,8 | 5,14 | 516,28 |
| 2145 |  |  |  | 90,0 | 5,27 | 513,28 |
| 2146 |  |  |  | 81,4 | 5,58 | 553,30 |
| 2147 |  |  |  | 78,6 | 5,02 | 495,27 |
| 2148 |  |  |  | 81,4 | 5,51 | 547,21 |
| 2149 |  |  |  | 85,5 | 5,62 | 539,29 |
| 2150 |  |  |  | 78,9 | 4,86 | 537,28 |
| 2151 |  |  |  | 83,2 | 5,76 | 569,28 |
| 2152 |  |  |  | 90,5 | 4,62 | 429,28 |
| 2153 |  |  |  | 91,8 | 5,31 | 491,31 |
| 2154 |  |  |  | 60,4 | 4,47 | 482,33 |
| 2155 |  |  |  | 83,6 | 4,62 | 479,31 |
| 2156 |  |  |  | 79,1 | 4,72 | 519,34 |

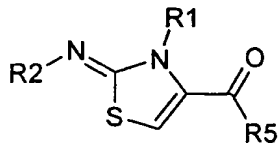

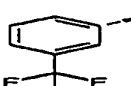
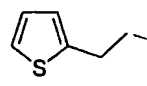
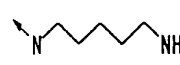
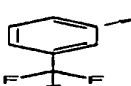
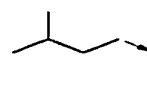
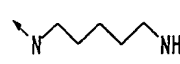
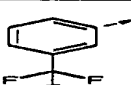
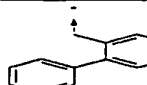
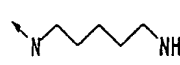
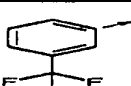
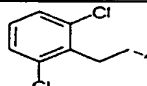
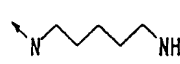
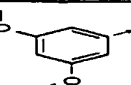
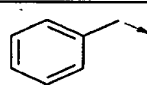
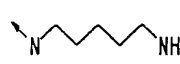
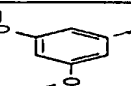
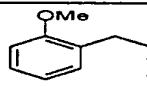
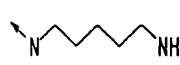

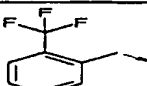
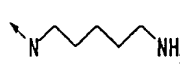
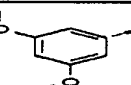
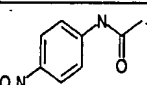
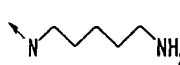
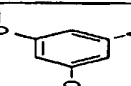
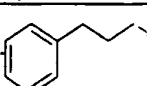
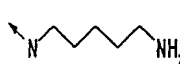
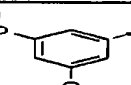
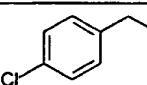
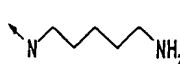
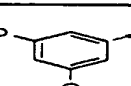
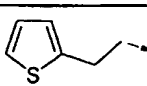
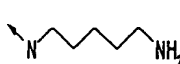

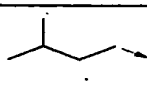
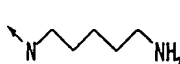
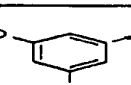
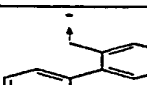
|  | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2157 |  |  |  | 72,6 | 3,96 | 461,31 |
| 2158 |  |  |  | 75,7 | 5,0 | 513,27 |
| 2159 |  |  |  | 79,3 | 4,99 | 505,34 |
| 2160 |  |  |  | 89,6 | 3,72 | 503,34 |
| 2161 |  |  |  | 89,6 | 4,7 | 535,32 |
| 2162 |  |  |  | 73,5 | 3,38 | 395,32 |
| 2163 |  |  |  | 80,1 | 4,5 | 457,32 |
| 2164 |  |  |  | 58,8 | 4,24 | 561,29 |
| 2165 |  |  |  | 77,9 | 4,16 | 558,27 |
| 2166 |  |  |  | 85,5 | 4,42 | 598,29 |
| 2167 |  |  |  | 82,8 | 3,87 | 540,27 |
| 2168 |  |  |  | 1,54 | 4,52 | 592,25 |
| 2169 |  |  |  | 56,0 | 4,54 | 584,25 |

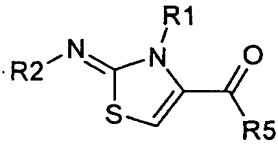
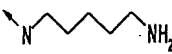
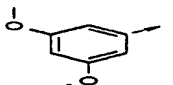
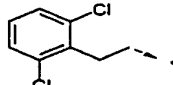
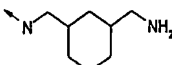
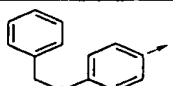
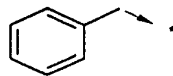
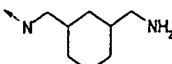
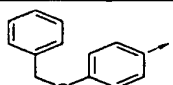
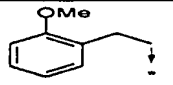
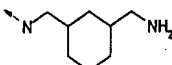
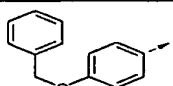
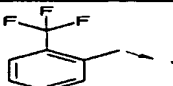
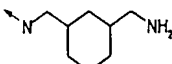
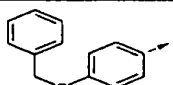
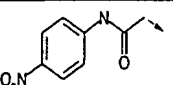
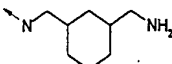
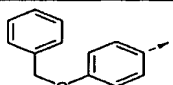
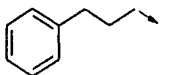
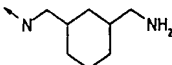
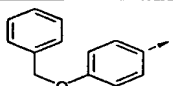
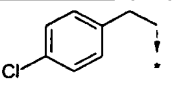
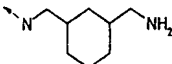
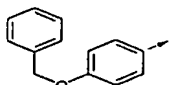
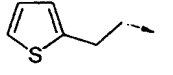
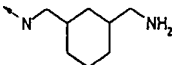
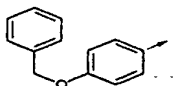
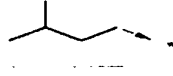
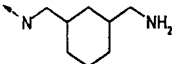
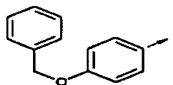
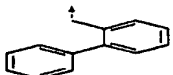
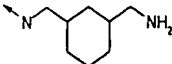
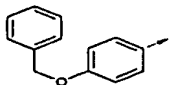
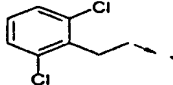
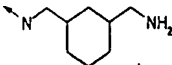
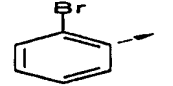
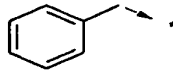
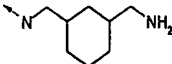
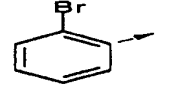
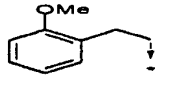
|  | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2170 |  |  |  | 82,5 | 3,76 | 582,30 |
| 2171 |  |  |  | 71,8 | 4,58 | 614,31 |
| 2172 |  |  |  | 71,9 | 3,43 | 474,30 |
| 2173 |  |  |  | 80,9 | 4,16 | 536,28 |
| 2174 |  |  |  | 61,9 | 4,76 | 510,36 |
| 2175 |  |  |  | 83,1 | 4,93 | 507,35 |
| 2176 |  |  |  | 92,0 | 4,99 | 547,36 |
| 2177 |  |  |  | 88,3 | 4,27 | 489,35 |
| 2178 |  |  |  | 86,3 | 5,41 | 541,29 |
| 2179 |  |  |  | 79,7 | 5,36 | 533,36 |
| 2180 |  |  |  | 82,5 | 4,13 | 531,35 |
| 2181 |  |  |  | 74,0 | 4,99 | 563,34 |
| 2182 |  |  |  | 76 | 3,89 | 423,35 |

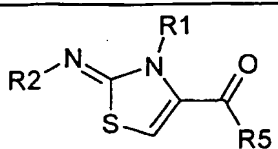
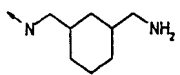
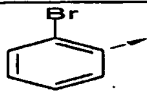
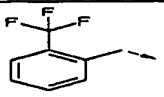
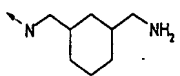
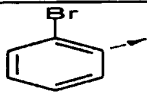
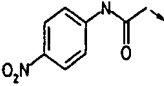
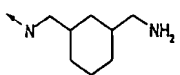
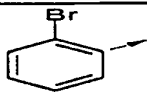
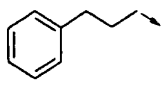
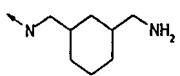
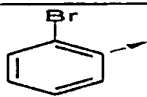
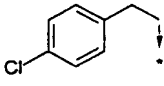
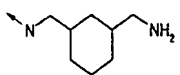
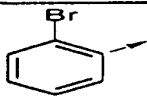
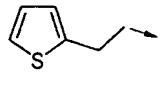
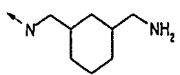
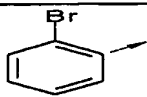
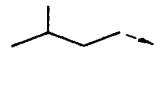
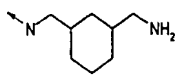
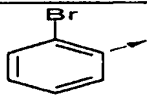
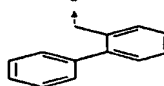
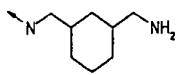
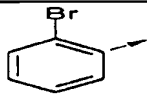
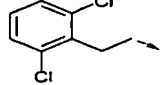
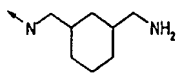
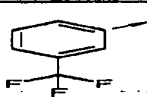
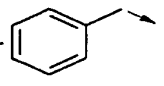
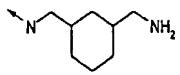
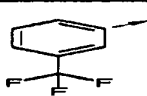
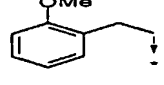
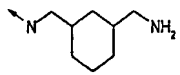
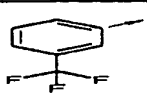
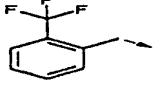
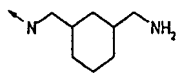
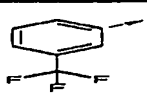
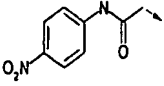
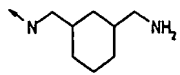
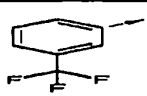
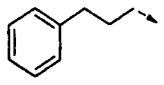
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|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2183 |  |  |  | 79,8 | 4,89 | 485,38 |

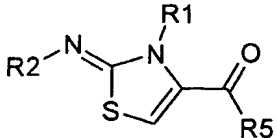
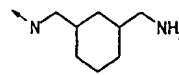
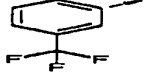
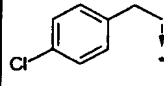
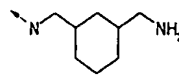
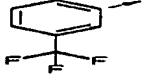
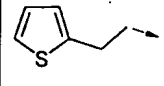
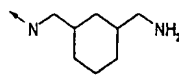
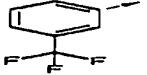
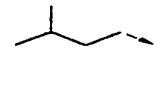
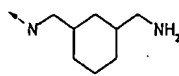
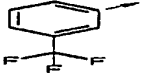
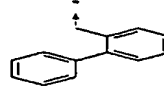
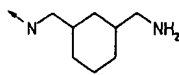
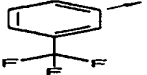
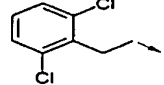
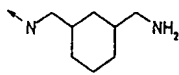

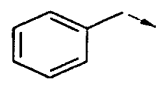
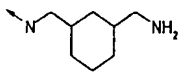
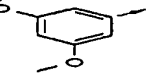
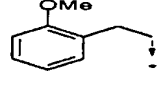
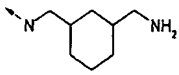

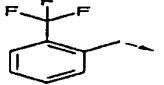
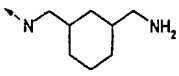
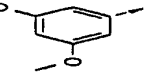
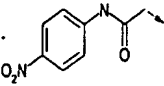
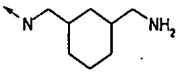
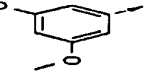
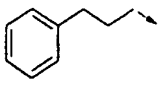
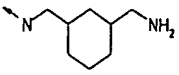

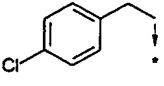
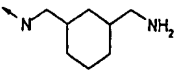

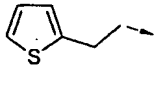
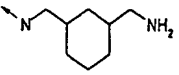

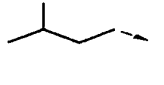
|  | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2184 |  |  |  | 80,8 | 4,43 | 501,32 |
| 2185 |  |  |  | 66,2 | 4,18 | 545,31 |
| 2186 |  |  |  | 64,6 | 5,18 | 569,27 |
| 2187 |  |  |  | 57,2 | 4,78 | 589,30 |
| 2188 |  |  |  | 65,7 | 4,41 | 529,36 |
| 2189 |  |  |  | 65,4 | 4,52 | 549,28 |
| 2190 |  |  |  | 65,8 | 4,24 | 521,29 |
| 2191 |  |  |  | 71,4 | 4,19 | 481,37 |
| 2192 |  |  |  | 83,9 | 4,8 | 577,32 |
| 2193 |  |  |  | 76,5 | 4,54 | 583,24 |
| 2194 |  |  |  | 67,2 | 4,76 | 473,22 |
| 2195 |  |  |  | 66,6 | 4,69 | 517,20 |
| 2196 |  |  |  | 71 | 5,2 | 541,18 |

|  | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2197 |  |  |  | 69 | 4,73 | 561,15 |
| 2198 |  |  |  | 74,8 | 5,04 | 501,24 |
| 2199 |  |  |  | 69,5 | 5,18 | 521,16 |
| 2200 |  |  |  | 79,3 | 4,8 | 493,18 |
| 2201 |  |  |  | 74,9 | 4,79 | 453,24 |
| 2202 |  |  |  | 68,9 | 5,41 | 549,20 |
| 2203 |  |  |  | 68 | 5,2 | 555,11 |
| 2204 |  |  |  | 66 | 5,02 | 463,27 |
| 2205 |  |  |  | 62,2 | 4,83 | 507,28 |
| 2206 |  |  |  | 65,2 | 5,48 | 531,24 |
| 2207 |  |  |  | 66,3 | 4,99 | 551,22 |
| 2208 |  |  |  | 72,9 | 5,22 | 491,31 |
| 2209 |  |  |  | 77,2 | 5,31 | 511,24 |

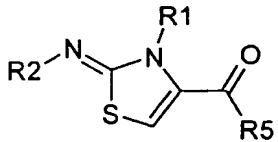
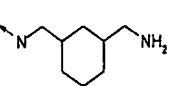

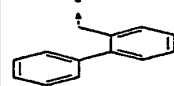
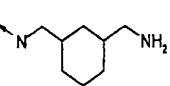

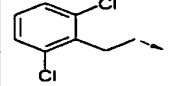
|  | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2210 |  |  |  | 62,8 | 4,98 | 483,24 |
| 2211 |  |  |  | 62,4 | 4,98 | 443,31 |
| 2212 |  |  |  | 69,6 | 5,55 | 539,29 |
| 2213 |  |  |  | 63,5 | 5,41 | 545,19 |
| 2214 |  |  |  | 41,2 | 4,09 | 455,28 |
| 2215 |  |  |  | 58,5 | 3,73 | 499,35 |
| 2216 |  |  |  | 68,8 | 4,78 | 523,28 |
| 2217 |  |  |  | 36,2 | 4,37 | 543,28 |
| 2218 |  |  |  | 42,9 | 4,1 | 483,36 |
| 2219 |  |  |  | 46,1 | 4,24 | 503,30 |
| 2220 |  |  |  | 48,4 | 3,87 | 475,28 |
| 2221 |  |  |  | 39 | 3,8 | 435,34 |
| 2222 |  |  |  | 48,3 | 4,55 | 531,30 |

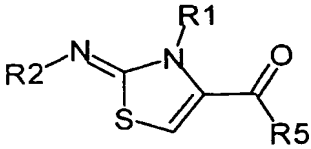
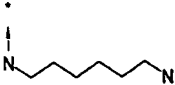
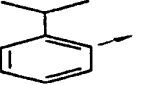
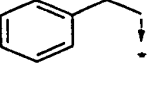
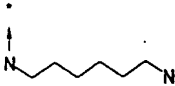
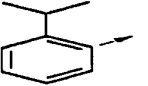
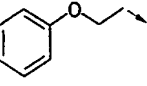
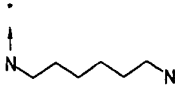
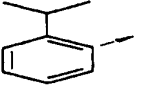
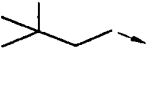
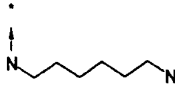
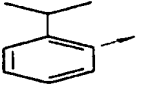
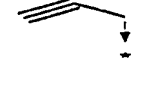
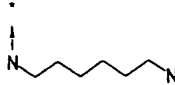
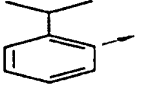
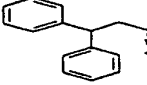
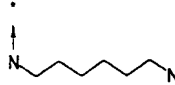
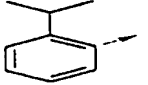
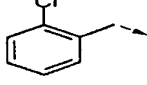
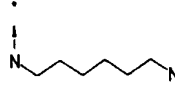
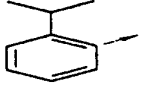
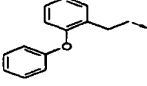
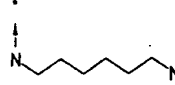
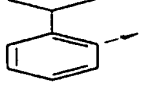
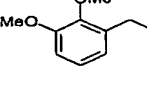
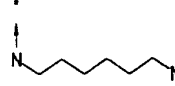
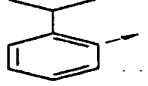
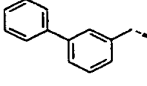
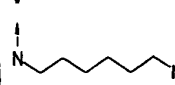
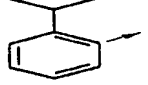
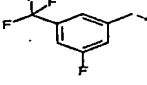
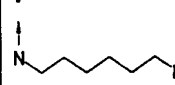
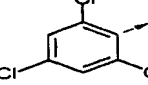
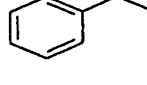
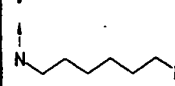
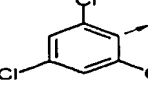
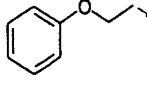
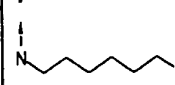
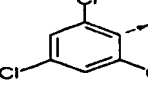
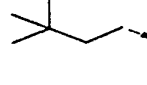
|  | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2223 |  |  |  | 47 | 4,33 | 537,20 |
| 2224 |  |  |  | 57,4 | 4,64 | 541,34 |
| 2225 |  |  |  | 69,1 | 4,34 | 585,37 |
| 2226 |  |  |  | 64,6 | 5,36 | 609,35 |
| 2227 |  |  |  | 40,2 | 4,94 | 629,34 |
| 2228 |  |  |  | 62,6 | 4,57 | 569,3 |
| 2229 |  |  |  | 68 | 4,72 | 589,31 |
| 2230 |  |  |  | 61,2 | 4,44 | 561,31 |
| 2231 |  |  |  | 61,2 | 4,37 | 521,36 |
| 2232 |  |  |  | 80,7 | 5,02 | 617,37 |
| 2233 |  |  |  | 74,2 | 4,77 | 623,28 |
| 2234 |  |  |  | 68,1 | 4,99 | 513,23 |
| 2235 |  |  |  | 66,1 | 4,98 | 557,22 |

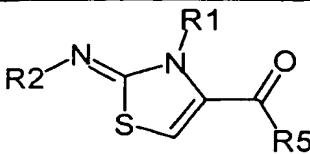
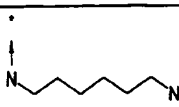
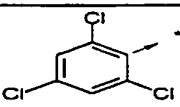
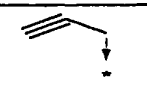
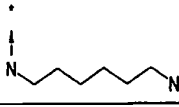
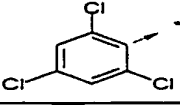
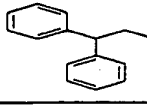
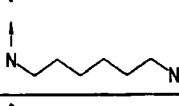
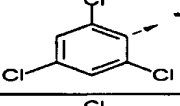
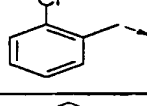
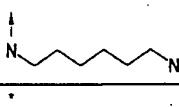
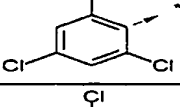
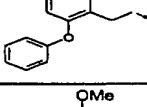
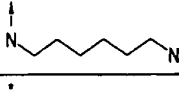
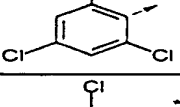
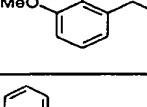
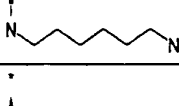
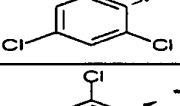
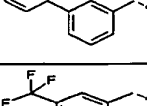
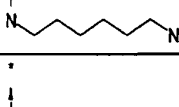
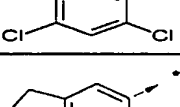
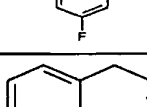
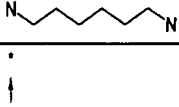
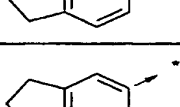
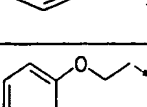
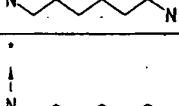
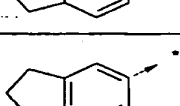
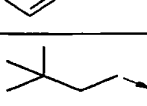
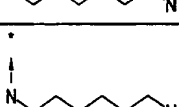
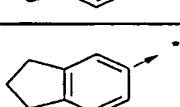
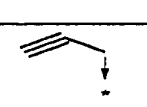
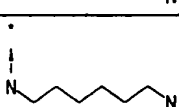
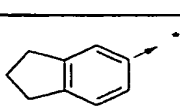
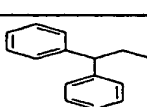
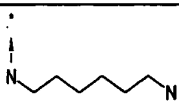
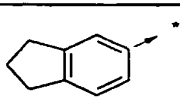
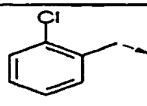



|  | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2236 |  |  |  | 68,8 | 5,38 | 581,20 |
| 2237 |  |  |  | 69,7 | 4,9 | 601,19 |
| 2238 |  |  |  | 67,1 | 5,27 | 541,23 |
| 2239 |  |  |  | 72,6 | 5,45 | 561,16 |
| 2240 |  |  |  | 75,6 | 5,09 | 533,17 |
| 2241 |  |  |  | 74,6 | 5,08 | 493,26 |
| 2242 |  |  |  | 74,2 | 5,6 | 589,22 |
| 2243 |  |  |  | 70 | 5,48 | 595,14 |
| 2244 |  |  |  | 63,2 | 5,24 | 503,32 |
| 2245 |  |  |  | 61,1 | 5,1 | 547,30 |
| 2246 |  |  |  | 63,3 | 5,65 | 571,25 |
| 2247 |  |  |  | 63,7 | 5,15 | 591,28 |
| 2248 |  |  |  | 67,2 | 5,46 | 531,31 |

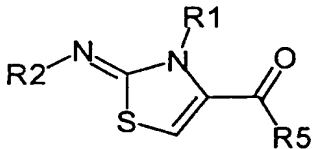
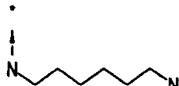
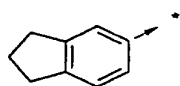
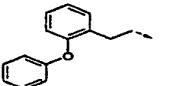
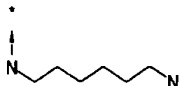
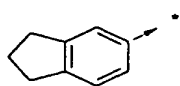
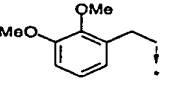
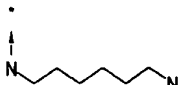
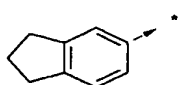
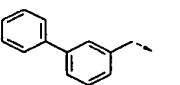
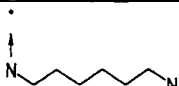
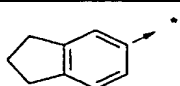
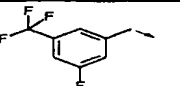
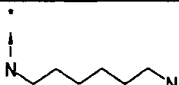
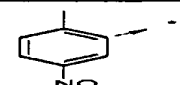
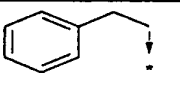
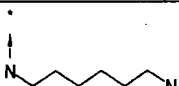
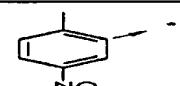
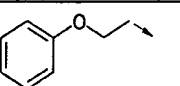
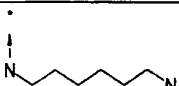
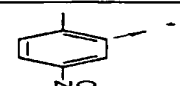
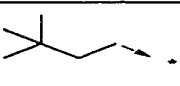
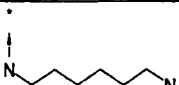
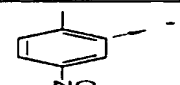
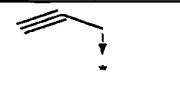
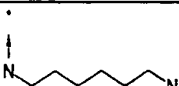
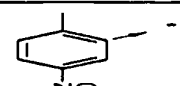
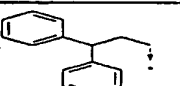

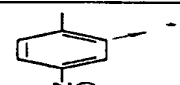
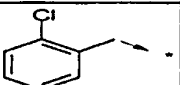
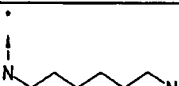
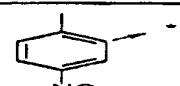
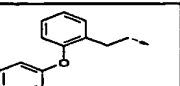

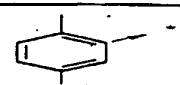
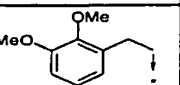
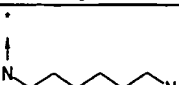
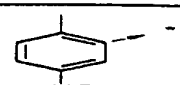
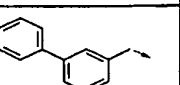
|  | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2249 |  |  |  | 76 | 5,58 | 551,24 |
| 2250 |  |  |  | 60,2 | 5,25 | 523,26 |
| 2251 |  |  |  | 58,8 | 5,24 | 483,3 |
| 2252 |  |  |  | 72,1 | 5,76 | 579,31 |
| 2253 |  |  |  | 65,2 | 5,66 | 585,20 |
| 2254 |  |  |  | 36 | 4,36 | 495,33 |
| 2255 |  |  |  | 58,6 | 3,97 | 539,36 |
| 2256 |  |  |  | 70 | 5,0 | 563,28 |
| 2257 |  |  |  | 50,2 | 4,55 | 583,28 |
| 2258 |  |  |  | 43,2 | 4,34 | 523,35 |
| 2259 |  |  |  | 52 | 4,53 | 543,29 |
| 2260 |  |  |  | 52,1 | 4,16 | 515,30 |
| 2261 |  |  |  | 46,2 | 4,07 | 475,38 |

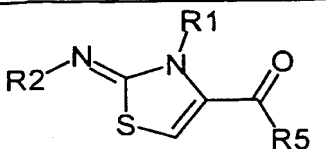
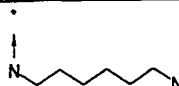
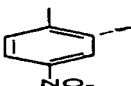
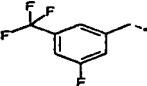
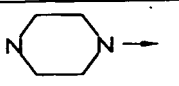
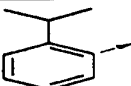
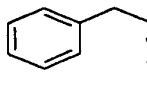
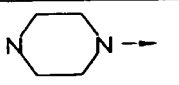
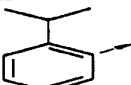
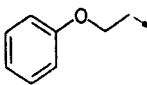
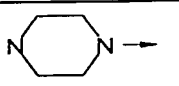
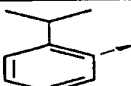
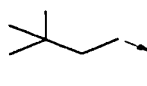
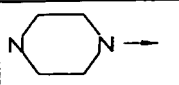
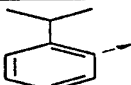
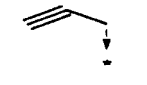
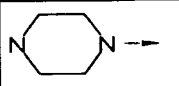
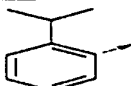
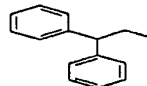
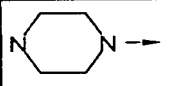
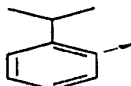
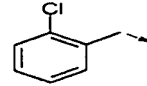
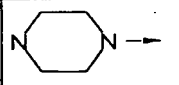
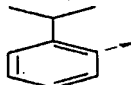
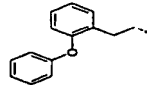
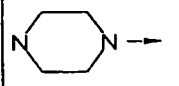
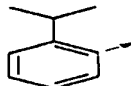
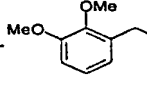
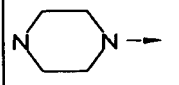
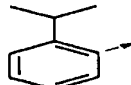
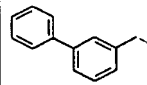
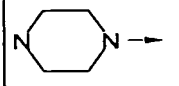
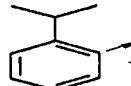
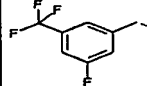
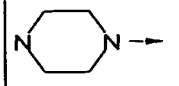
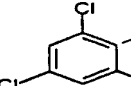
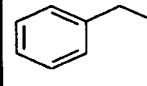
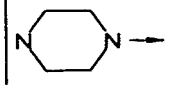
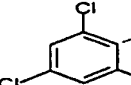
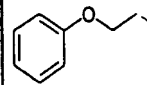
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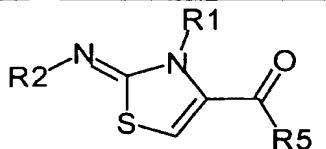
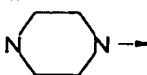
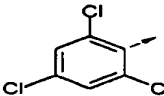
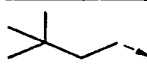
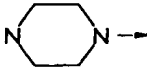
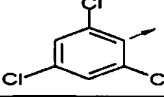

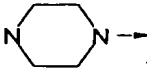
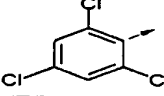
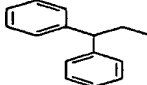
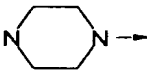
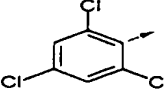
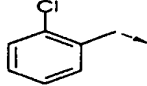
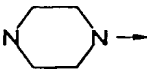
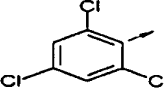
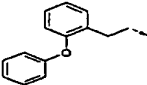
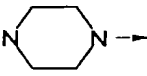
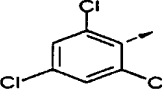
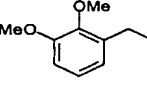
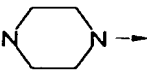
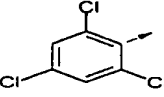
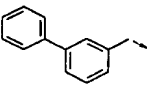
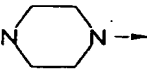
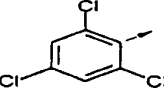
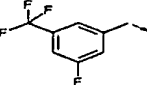
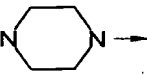
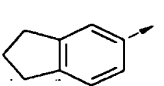
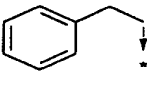
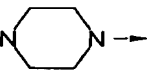
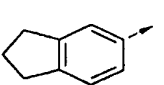
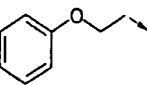
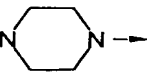
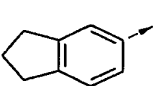
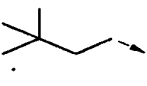
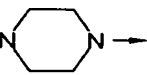
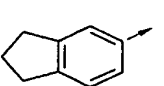

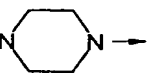
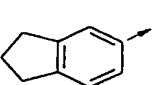
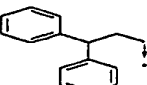
|  | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2262 |  |  |  | 55,2 | 4,82 | 571,33 |
| 2263 |  |  |  | 51,5 | 4,63 | 577,22 |

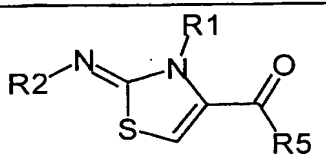
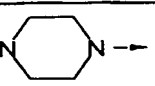
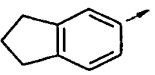
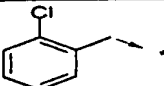
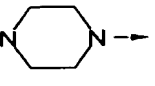
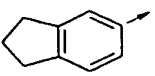
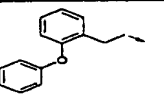
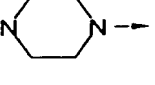
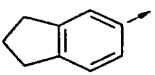
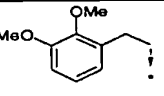
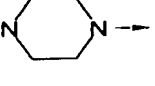
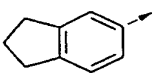
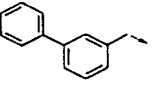
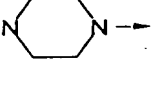
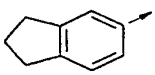
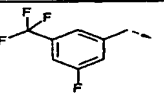
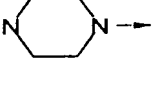
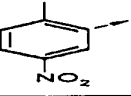
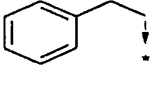
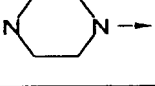
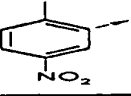
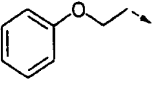
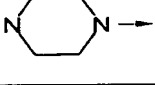
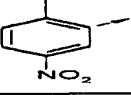
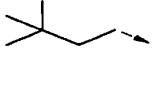
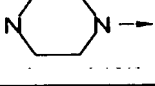
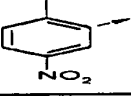
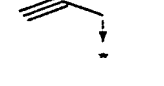
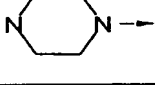
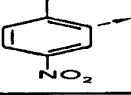
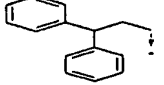
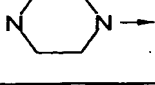
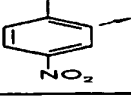
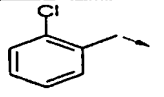
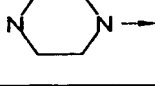
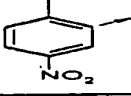
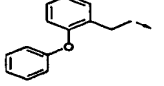
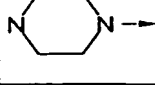
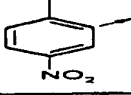
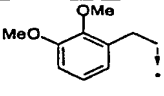
|  | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2264 |  |  |  | 81,1 | 4,49 | 465,35 |
| 2265 |  |  |  | 84,1 | 4,7 | 481,36 |
| 2266 |  |  |  | 65,7 | 4,78 | 445,36 |
| 2267 |  |  |  | 63,0 | 4,51 | 399,29 |
| 2268 |  |  |  | 77,8 | 5,39 | 555,37 |
| 2269 |  |  |  | 78,5 | 5,21 | 485,32 |
| 2270 |  |  |  | 74,0 | 5,02 | 557,37 |
| 2271 |  |  |  | 78,1 | 4,38 | 525,37 |
| 2272 |  |  |  | 89,2 | 5,42 | 527,38 |
| 2273 |  |  |  | 83,0 | 5,75 | 537,30 |
| 2274 |  |  |  | 67,8 | 5,87 | 525,21 |
| 2275 |  |  |  | 83,2 | 5,75 | 541,16 |
| 2276 |  |  |  | 71,9 | 6,11 | 505,25 |

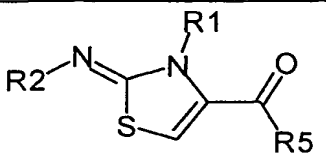
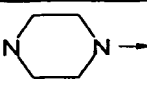
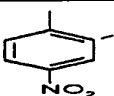
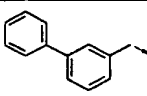
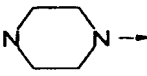
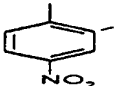
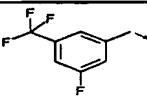
|  | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2277 |  |  |  | 70,5 | 5,14 | 459,15 |
| 2278 |  |  |  | 74,6 | 6,44 | 615,23 |
| 2279 |  |  |  | 71,5 | 5,88 | 545,10 |
| 2280 |  |  |  | 80,2 | 6,43 | 617,19 |
| 2281 |  |  |  | 93,4 | 5,82 | 585,18 |
| 2282 |  |  |  | 74,9 | 6,28 | 587,19 |
| 2283 |  |  |  | 68,3 | 6,24 | 597,14 |
| 2284 |  |  |  | 65,8 | 4,02 | 463,35 |
| 2285 |  |  |  | 75,8 | 4,22 | 479,33 |
| 2286 |  |  |  | 69,0 | 4,21 | 443,37 |
| 2287 |  |  |  | 4,2 | 4,36 | 397,33 |
| 2288 |  |  |  | 82,7 | 4,74 | 553,37 |
| 2289 |  |  |  | 89,8 | 4,62 | 483,29 |

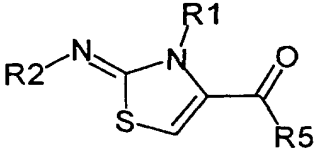

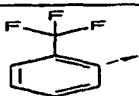
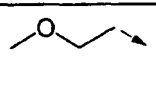
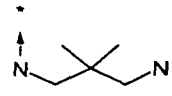
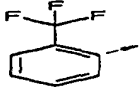
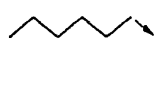
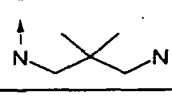
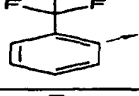
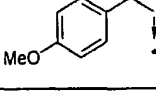
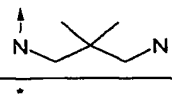
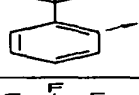
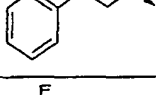
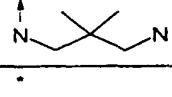

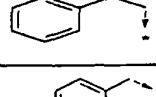
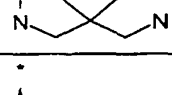
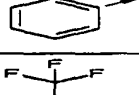
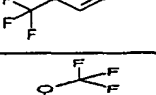
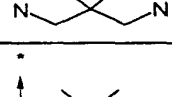
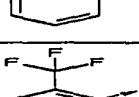

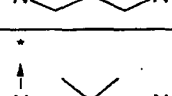
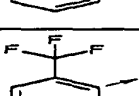
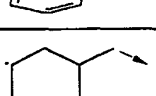
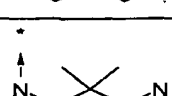
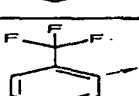
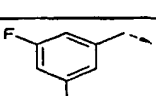
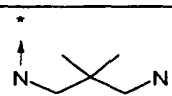
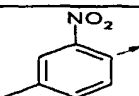
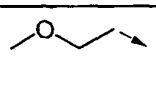
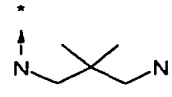
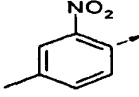
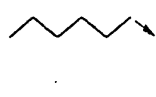
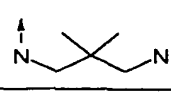
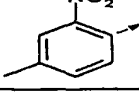
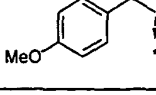



|  | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2290 |  |  |  | 77,2 | 4,52 | 555,33 |
| 2291 |  |  |  | 69,3 | 3,98 | 523,35 |
| 2292 |  |  |  | 73,3 | 4,98 | 525,34 |
| 2293 |  |  |  | 73,1 | 5,44 | 535,29 |
| 2294 |  |  |  | 59,4 | 5,14 | 482,30 |
| 2295 |  |  |  | 76,0 | 5,09 | 498,28 |
| 2296 |  |  |  | 62,3 | 5,47 | 462,32 |
| 2297 |  |  |  | 58,6 | 4,55 | 416,22 |
| 2298 |  |  |  | 79,5 | 5,84 | 572,32 |
| 2299 |  |  |  | 74,9 | 5,3 | 502,25 |
| 2300 |  |  |  | 72,7 | 5,71 | 574,28 |
| 2301 |  |  |  | 71,1 | 5,06 | 542,32 |
| 2302 |  |  |  | 73,0 | 5,66 | 544,29 |

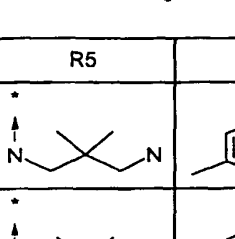
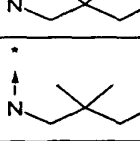
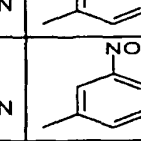
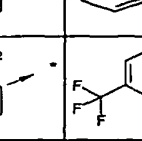
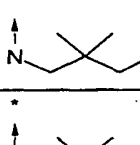
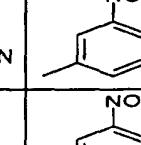
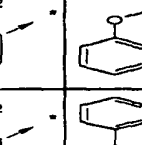
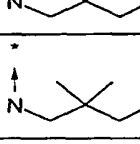
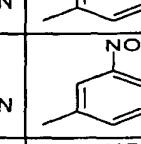
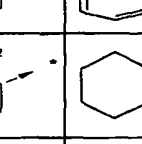
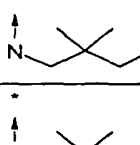
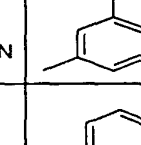
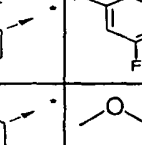
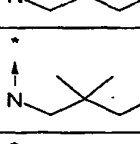
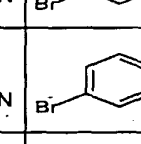
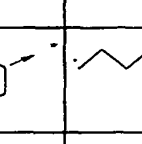
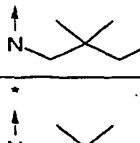
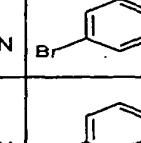
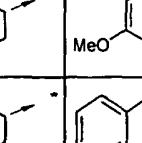
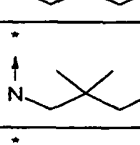
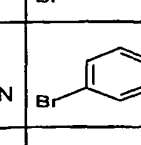
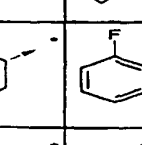
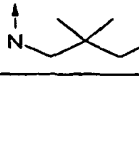
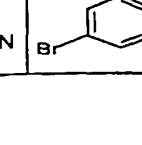
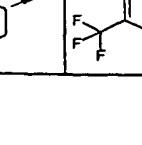



|  | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2303 |  |  |  | 64,6 | 5,62 | 554,24 |
| 2304 |  |  |  | 92,2 | 4,62 | 435,30 |
| 2305 |  |  |  | 90,1 | 4,67 | 451,29 |
| 2306 |  |  |  | 84,3 | 4,76 | 415,32 |
| 2307 |  |  |  | 43,7 | 4,34 | 369,27 |
| 2308 |  |  |  | 83,7 | 5,44 | 525,34 |
| 2309 |  |  |  | 80,3 | 4,96 | 455,25 |
| 2310 |  |  |  | 83,7 | 5,26 | 527,32 |
| 2311 |  |  |  | 82,8 | 4,64 | 495,34 |
| 2312 |  |  |  | 94,1 | 5,44 | 497,32 |
| 2313 |  |  |  | 90,1 | 5,55 | 507,29 |
| 2314 |  |  |  | 64,7 | 5,62 | 495,16 |
| 2315 |  |  |  | 50,7 | 5,54 | 511,15 |

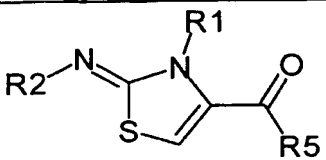
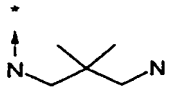
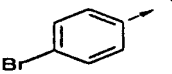
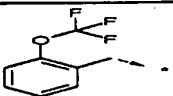
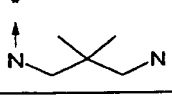
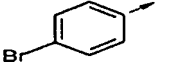
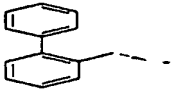
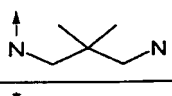
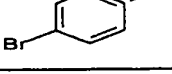
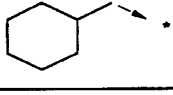
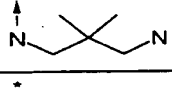
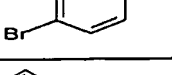
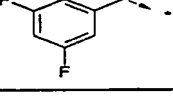
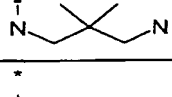
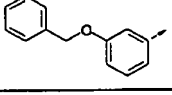
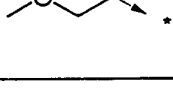
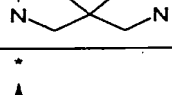
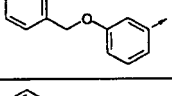
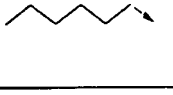
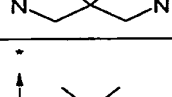
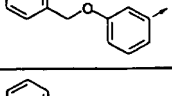
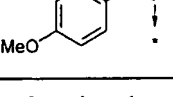
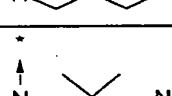
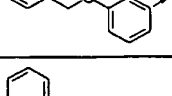
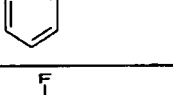
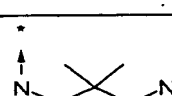
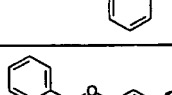
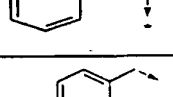
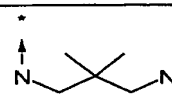
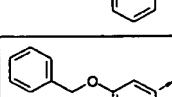
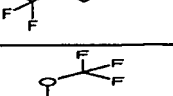
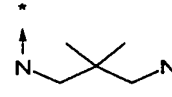
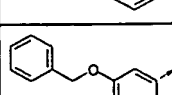

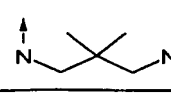
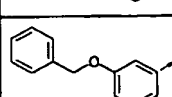
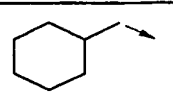



|  | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2316 |  |  |  | 78,0 | 5,8 | 475,22 |
| 2317 |  |  |  | 20,9 | 4,86 | 429,14 |
| 2318 |  |  |  | 79,2 | 6,27 | 585,15 |
| 2319 |  |  |  | 46,3 | 5,58 | 515,12 |
| 2320 |  |  |  | 84,1 | 6,23 | 587,20 |
| 2321 |  |  |  | 91,1 | 5,64 | 555,18 |
| 2322 |  |  |  | 67,8 | 6,07 | 557,22 |
| 2323 |  |  |  | 23,9 | 5,96 | 567,17 |
| 2324 |  |  |  | 68,1 | 4,02 | 433,40 |
| 2325 |  |  |  | 65,6 | 4,2 | 449,38 |
| 2326 |  |  |  | 83,5 | 4,14 | 413,39 |
| 2327 |  |  |  | 36,4 | 3,94 | 367,35 |
| 2328 |  |  |  | 87,5 | 4,82 | 523,39 |

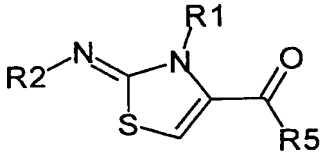
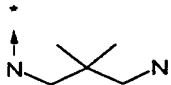
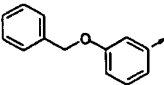
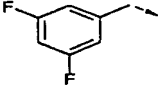
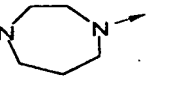
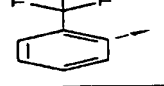
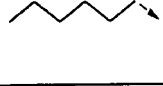
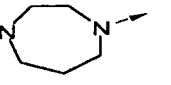
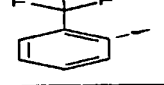
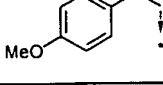
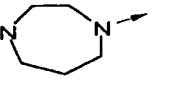
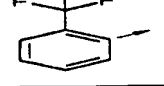
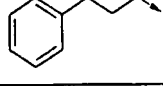
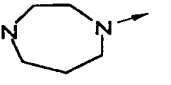
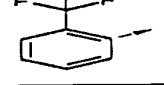
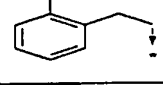
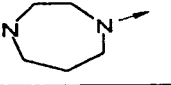
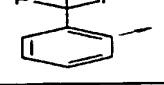
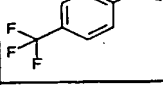
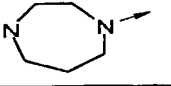
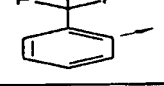
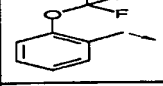
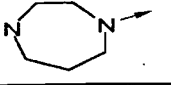
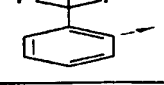
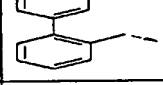
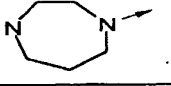
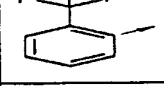
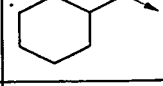
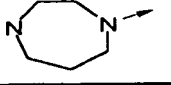
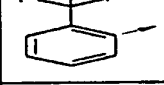
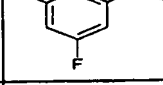
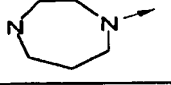
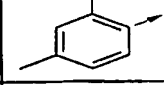
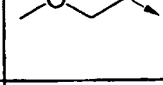
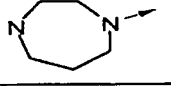
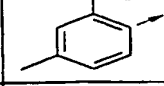
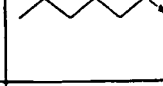
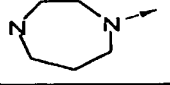
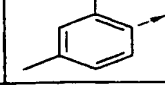
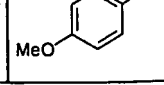
|  | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2329 |  |  |  | 65,1 | 4,42 | 453,33 |
| 2330 |  |  |  | 91,7 | 4,59 | 525,37 |
| 2331 |  |  |  | 81,5 | 4,01 | 493,40 |
| 2332 |  |  |  | 73,9 | 4,96 | 495,39 |
| 2333 |  |  |  | 72,7 | 5,3 | 505,33 |
| 2334 |  |  |  | 79,9 | 4,93 | 452,35 |
| 2335 |  |  |  | 81,8 | 4,88 | 468,33 |
| 2336 |  |  |  | 85,9 | 5,17 | 432,36 |
| 2337 |  |  |  | 36,2 | 4,25 | 386,28 |
| 2338 |  |  |  | 93,3 | 5,62 | 542,36 |
| 2339 |  |  |  | 76,5 | 4,96 | 472,3 |
| 2340 |  |  |  | 84,9 | 5,53 | 544,34 |
| 2341 |  |  |  | 80,6 | 4,96 | 512,34 |

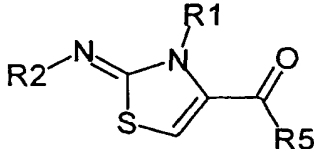
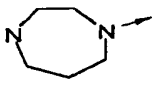
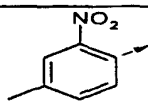
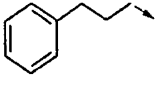
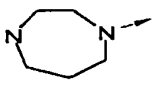
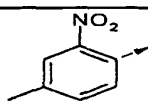
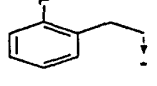
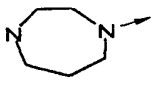
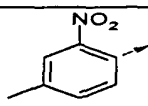
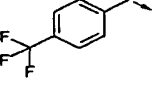
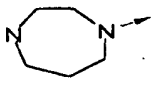
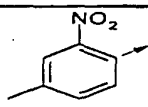
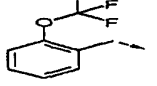
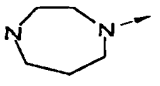
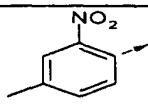
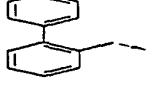
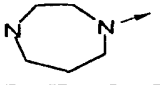
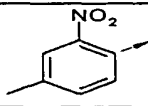
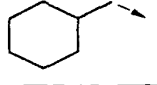
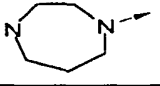
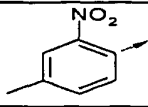
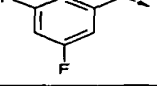
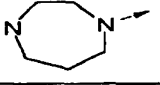
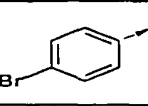
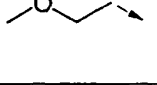
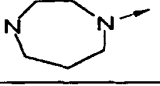
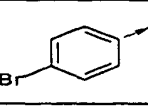
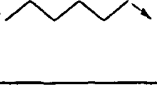
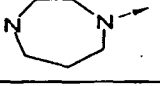
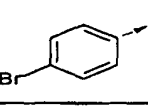
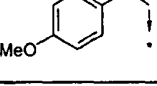
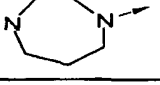
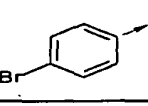
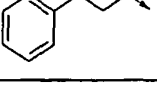
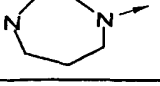
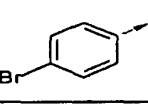
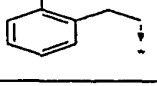
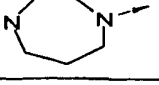
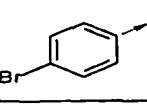
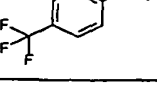
|  | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2342 |  |  |  | 79,6 | 5,42 | 514,35 |
| 2343 |  |  |  | 64,9 | 5,34 | 524,27 |

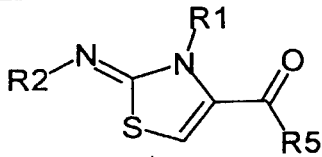
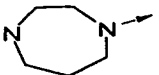
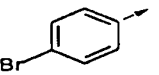
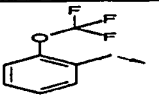
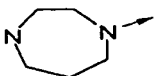
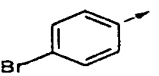
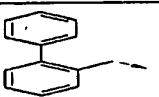
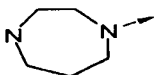
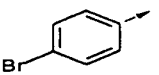
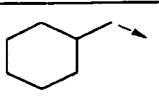
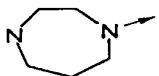
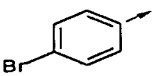
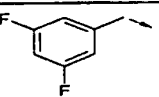
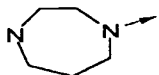
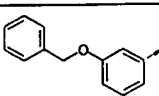
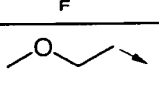
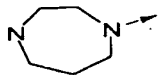
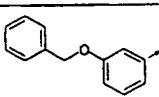
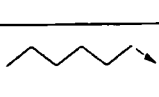
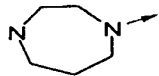
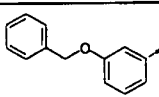
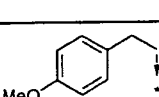
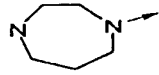
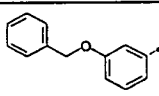
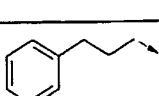
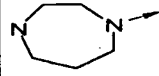
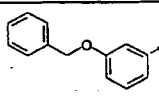
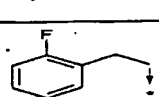
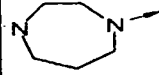
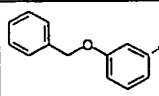
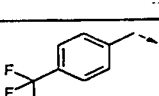
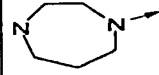
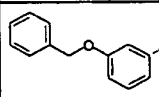
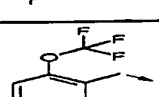
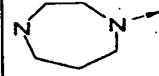
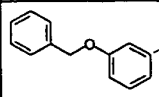

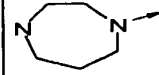
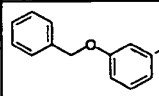
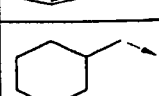
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|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2344 |  |  |  | 76,9 | 4,54 | 431,32 |
| 2345 |  |  |  | 80,7 | 5,47 | 457,38 |
| 2346 |  |  |  | 82,2 | 5,19 | 507,34 |
| 2347 |  |  |  | 82,1 | 5,38 | 491,35 |
| 2348 |  |  |  | 76,7 | 5,2 | 495,30 |
| 2349 |  |  |  | 83,1 | 5,42 | 531,30 |
| 2350 |  |  |  | 78,5 | 5,4 | 547,27 |
| 2351 |  |  |  | 86,8 | 5,58 | 539,33 |
| 2352 |  |  |  | 79,3 | 5,37 | 469,38 |
| 2353 |  |  |  | 83,1 | 5,18 | 499,31 |
| 2354 |  |  |  | 82,3 | 4,32 | 422,33 |
| 2355 |  |  |  | 78,2 | 5,26 | 448,39 |
| 2356 |  |  |  | 79,7 | 4,98 | 498,37 |

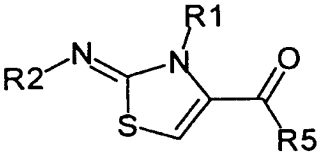
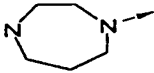
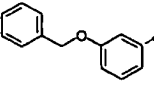
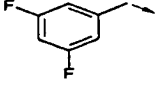
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|--|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2357 |  |  |  | 80,0 | 5,2 | 482,38 |
| 2358 |  |  |  | 75,3 | 5,0 | 486,34 |
| 2359 |  |  |  | 81,9 | 5,26 | 522,30 |
| 2360 |  |  |  | 77,7 | 5,25 | 538,29 |
| 2361 |  |  |  | 83,9 | 5,4 | 530,35 |
| 2362 |  |  |  | 81,8 | 5,16 | 460,38 |
| 2363 |  |  |  | 79,3 | 5,03 | 490,31 |
| 2364 |  |  |  | 82,5 | 4,01 | 441,22 |
| 2365 |  |  |  | 80,6 | 4,98 | 467,28 |
| 2366 | | | | 82,7 | 4,72 | 517,25 |
| 2367 | | | | 83,6 | 5,0 | 501,26 |
| 2368 | | | | 84,3 | 4,9 | 505,23 |
| 2369 | | | | 82,5 | 5,48 | 541,19 |

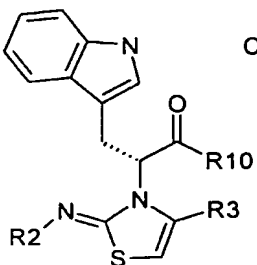
|  | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2370 |  |  |  | 86,6 | 5,5 | 557,19 |
| 2371 |  |  |  | 85,4 | 5,53 | 549,24 |
| 2372 |  |  |  | 82,3 | 4,9 | 479,30 |
| 2373 |  |  |  | 81,5 | 5,26 | 509,21 |
| 2374 |  |  |  | 83,4 | 4,23 | 469,37 |
| 2375 |  |  |  | 82,3 | 4,94 | 495,40 |
| 2376 |  |  |  | 88,1 | 4,73 | 545,36 |
| 2377 |  |  |  | 90,4 | 4,99 | 529,39 |
| 2378 |  |  |  | 90,6 | 4,92 | 533,35 |
| 2379 |  |  |  | 85,2 | 5,62 | 569,33 |
| 2380 |  |  |  | 84,2 | 5,6 | 585,33 |
| 2381 |  |  |  | 85,0 | 5,54 | 577,38 |
| 2382 |  |  |  | 80,6 | 4,87 | 507,41 |

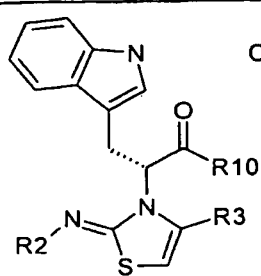
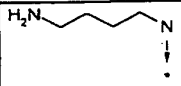
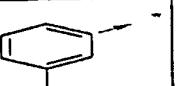

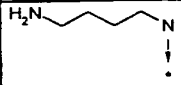
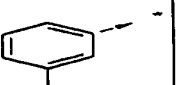
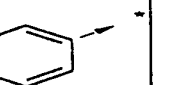
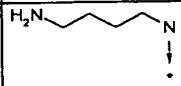
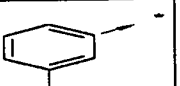
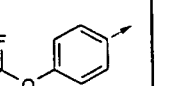
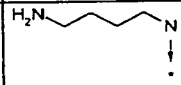
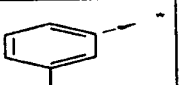
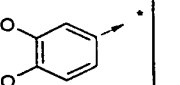
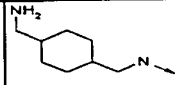
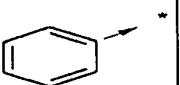

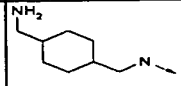
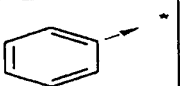
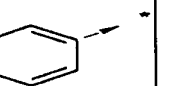
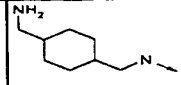
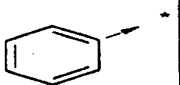
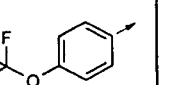
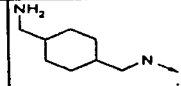
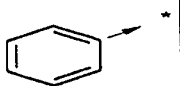
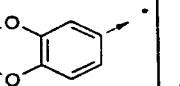
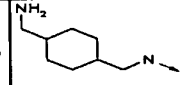
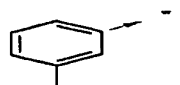

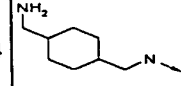
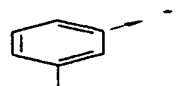
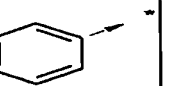
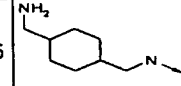
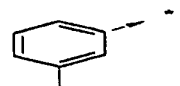
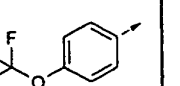
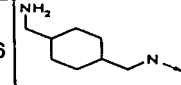
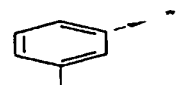
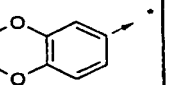
|  | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2383 |  |  |  | 85,9 | 5,42 | 537,34 |
| 2384 |  |  |  | 74,2 | 5,32 | 455,34 |
| 2385 |  |  |  | 92,3 | 5,1 | 505,32 |
| 2386 |  |  |  | 78,4 | 5,23 | 489,33 |
| 2387 |  |  |  | 71,3 | 5,12 | 493,32 |
| 2388 |  |  |  | 74,4 | 5,32 | 529,27 |
| 2389 |  |  |  | 68,8 | 5,29 | 545,25 |
| 2390 |  |  |  | 77,7 | 5,44 | 537,33 |
| 2391 |  |  |  | 80,7 | 5,24 | 467,36 |
| 2392 |  |  |  | 63,3 | 5,04 | 497,30 |
| 2393 |  |  |  | 87,4 | 4,16 | 420,33 |
| 2394 |  |  |  | 82,7 | 5,12 | 446,38 |
| 2395 |  |  |  | 82,4 | 4,88 | 496,35 |

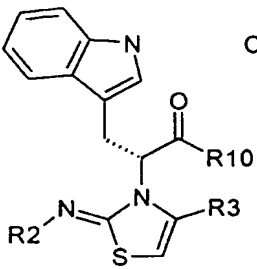
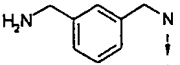
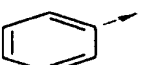

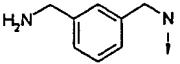
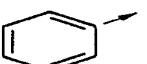
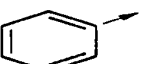
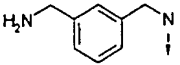
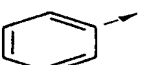
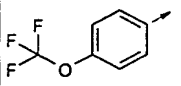
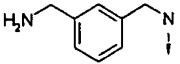
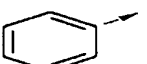
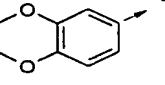
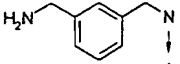
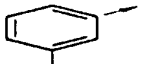
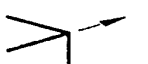
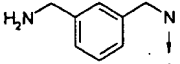
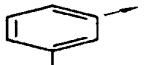
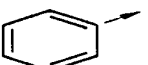
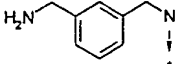
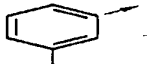
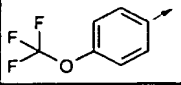
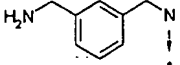
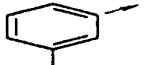
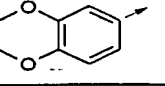
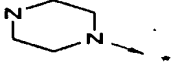
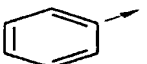
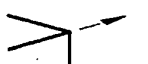
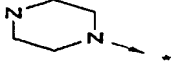
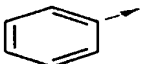
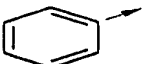
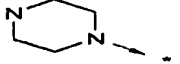
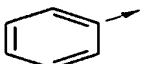
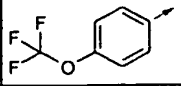
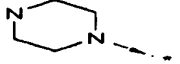
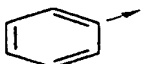
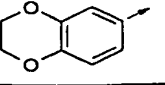
|  | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2396 |  |  |  | 78,0 | 5,04 | 480,37 |
| 2397 |  |  |  | 75,9 | 4,9 | 484,33 |
| 2398 |  |  |  | 71,5 | 5,16 | 520,29 |
| 2399 |  |  |  | 65,4 | 5,12 | 536,30 |
| 2400 |  |  |  | 76,0 | 5,28 | 528,33 |
| 2401 |  |  |  | 93,8 | 5,03 | 458,38 |
| 2402 |  |  |  | 69,2 | 4,88 | 488,30 |
| 2403 |  |  |  | 68,3 | 3,88 | 439,23 |
| 2404 |  |  |  | 70,8 | 4,89 | 465,28 |
| 2405 |  |  |  | 76,2 | 4,72 | 515,23 |
| 2406 |  |  |  | 76,5 | 4,88 | 499,27 |
| 2407 |  |  |  | 90,1 | 4,88 | 503,26 |
| 2408 |  |  |  | 78,8 | 5,36 | 539,19 |

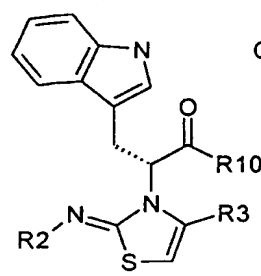
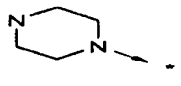
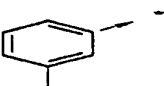

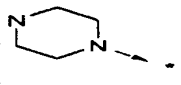
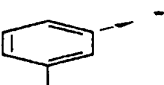
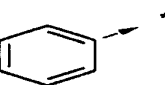
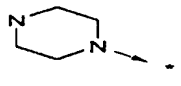
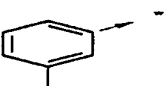
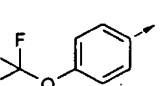
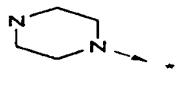
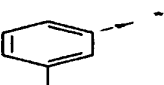
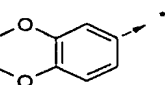
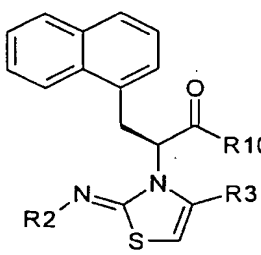
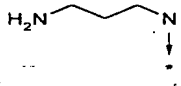
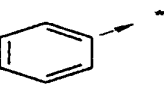

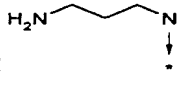
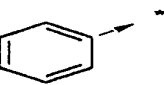
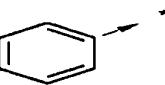
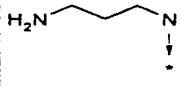
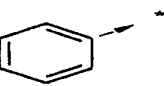
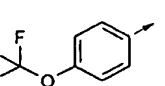
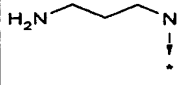
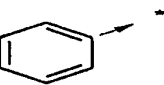
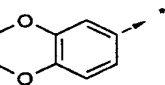
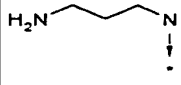
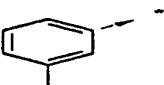

|  | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2409 |  |  |  | 76,1 | 5,31 | 555,17 |
| 2410 |  |  |  | 80,5 | 5,29 | 547,22 |
| 2411 |  |  |  | 68,2 | 4,86 | 477,30 |
| 2412 |  |  |  | 55,7 | 5,1 | 507,20 |
| 2413 |  |  |  | 69,2 | 4,12 | 467,36 |
| 2414 |  |  |  | 73,6 | 4,85 | 493,41 |
| 2415 |  |  |  | 73,9 | 4,72 | 543,36 |
| 2416 |  |  |  | 73,4 | 4,87 | 527,39 |
| 2417 |  |  |  | 90,6 | 4,92 | 531,36 |
| 2418 |  |  |  | 71,6 | 5,5 | 567,32 |
| 2419 |  |  |  | 60,5 | 5,4 | 583,32 |
| 2420 |  |  |  | 60,8 | 5,29 | 575,36 |
| 2421 |  |  |  | 58,8 | 4,82 | 505,39 |

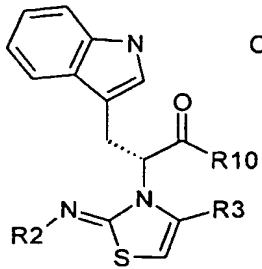
|  | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R5 | R2 | R1 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2422 |  |  |  | 54,7 | 5,29 | 535,31 |

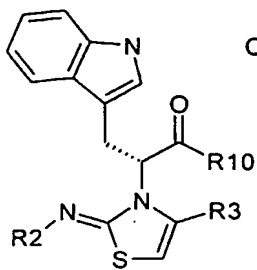
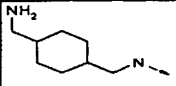
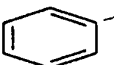
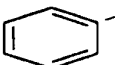
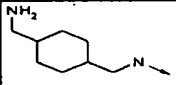
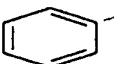
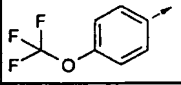
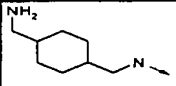
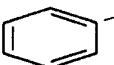
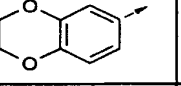
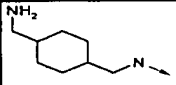
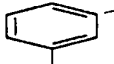
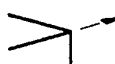
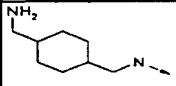
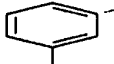
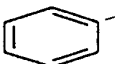
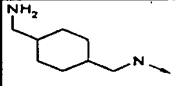
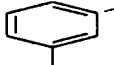
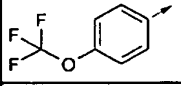
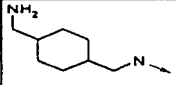
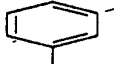
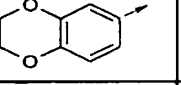
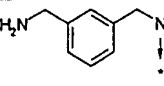
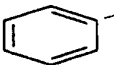
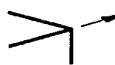
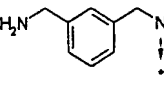
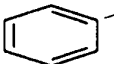
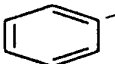
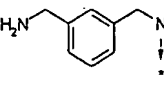
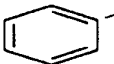
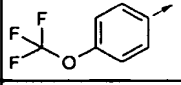
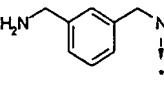
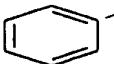
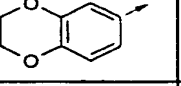
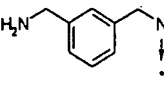
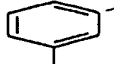
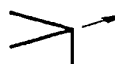
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|--|-----|----|----|------------|-----------|--------------------|
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2423 | | | | 79,8 | 3,66 | 476,30 |
| 2424 | | | | 59,3 | 3,68 | 496,26 |
| 2425 | | | | 60,5 | 4,2 | 580,22 |
| 2426 | | | | 52,7 | 3,68 | 554,24 |
| 2427 | | | | 72,3 | 3,87 | 490,30 |
| 2428 | | | | 63,8 | 3,85 | 510,26 |
| 2429 | | | | 63,0 | 4,34 | 594,23 |
| 2430 | | | | 54,1 | 3,82 | 568,25 |
| 2431 | | | | 76,9 | 3,72 | 490,30 |
| 2432 | | | | 70,7 | 3,73 | 510,26 |
| 2433 | | | | 69,1 | 4,23 | 594,24 |
| 2434 | | | | 52,7 | 3,72 | 568,24 |

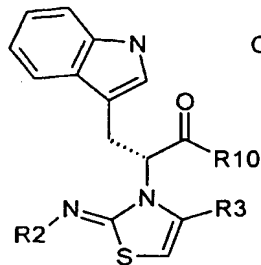
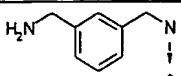
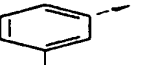
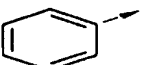
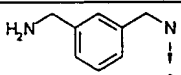
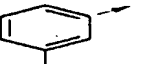
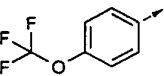
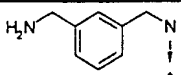
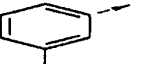
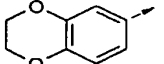
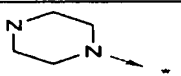
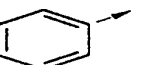
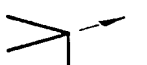
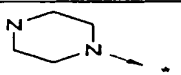
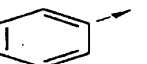
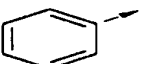
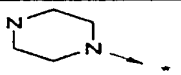
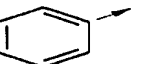
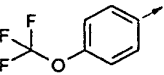
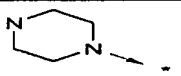
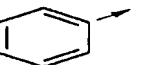
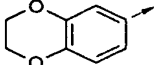
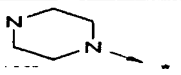
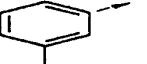

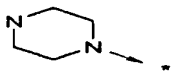
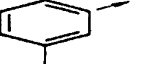
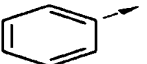
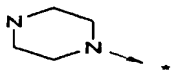
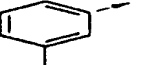
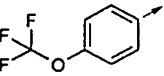
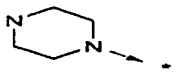
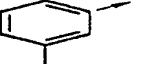
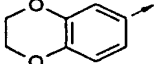
| <div style="display: flex; align-items: center; justify-content: center;">  <div style="margin-left: 10px;">Chiral</div> </div> | | | | | | |
|--|---|---|---|------------|-----------|--------------------|
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2435 |  |  |  | 76,6 | 3,92 | 504,32 |
| 2436 |  |  |  | 64,8 | 3,9 | 524,28 |
| 2437 |  |  |  | 66,2 | 4,37 | 608,24 |
| 2438 |  |  |  | 59,3 | 3,86 | 582,27 |
| 2439 |  |  |  | 74,3 | 3,9 | 544,32 |
| 2440 |  |  |  | 65,4 | 3,91 | 564,29 |
| 2441 |  |  |  | 63,8 | 4,41 | 648,30 |
| 2442 |  |  |  | 57,6 | 3,92 | 622,31 |
| 2443 |  |  |  | 77,8 | 4,09 | 558,34 |
| 2444 |  |  |  | 65,5 | 4,08 | 578,30 |
| 2445 |  |  |  | 64,3 | 4,5 | 662,31 |
| 2446 |  |  |  | 47,6 | 4,04 | 636,36 |

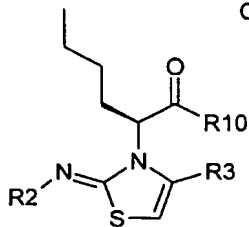
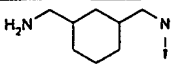
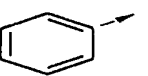
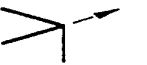
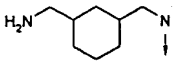
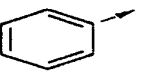
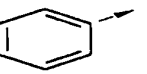
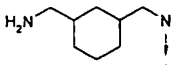
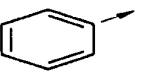
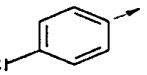
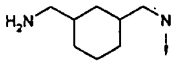
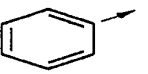
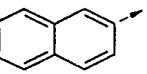
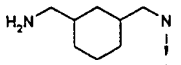
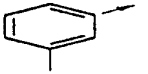
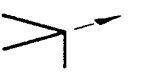
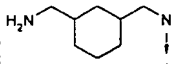

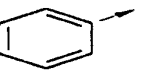
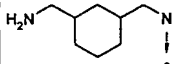
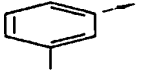
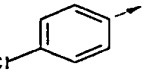
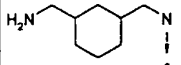

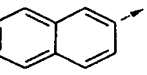
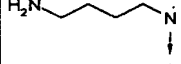
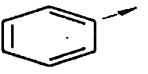

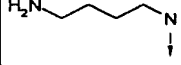
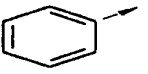
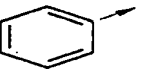
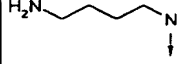
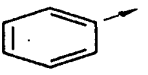
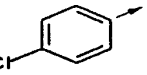

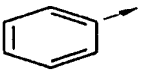
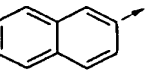
| <div style="display: flex; align-items: center; justify-content: center;">  <div style="margin-left: 10px;">Chiral</div> </div> | | | | | | |
|--|---|---|---|------------|-----------|--------------------|
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2447 |  |  |  | 78,6 | 3,88 | 538,28 |
| 2448 |  |  |  | 61,2 | 3,9 | 558,24 |
| 2449 |  |  |  | 59,8 | 4,38 | 642,27 |
| 2450 |  |  |  | 48,4 | 3,88 | 616,30 |
| 2451 |  |  |  | 79,9 | 4,06 | 552,28 |
| 2452 |  |  |  | 59,4 | 4,04 | 572,25 |
| 2453 |  |  |  | 61,4 | 4,52 | 656,29 |
| 2454 |  |  |  | 50,0 | 4,02 | 630,31 |
| 2455 |  |  |  | 76,1 | 3,74 | 488,29 |
| 2456 |  |  |  | 88,3 | 3,72 | 508,25 |
| 2457 |  |  |  | 84,2 | 4,21 | 592,22 |
| 2458 |  |  |  | 82,1 | 3,71 | 566,24 |

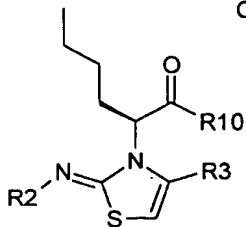
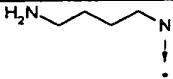
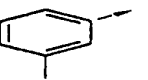

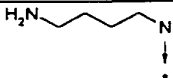
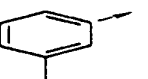
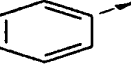
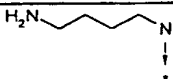
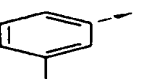
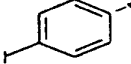
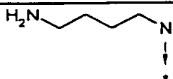
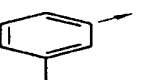
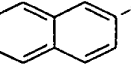
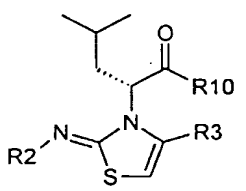
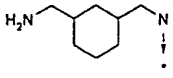
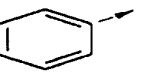
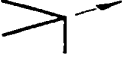
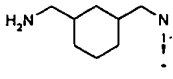
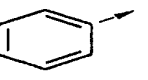
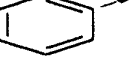
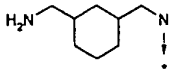
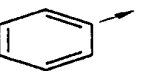
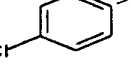
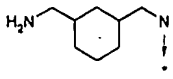
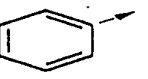
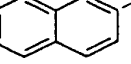
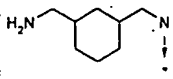
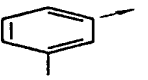
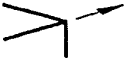
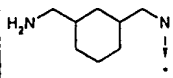
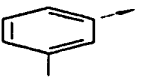
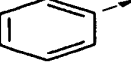
| <div style="text-align: center;">  <p>Chiral</p> </div> | | | | | | |
|--|---|---|---|------------|-----------|--------------------|
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2459 |  |  |  | 72,4 | 3,96 | 502,32 |
| 2460 |  |  |  | 88,5 | 3,89 | 522,27 |
| 2461 |  |  |  | 86,6 | 4,37 | 606,26 |
| 2462 |  |  |  | 77,2 | 3,8 | 580,26 |
| <div style="text-align: center;">  <p>Chiral</p> </div> | | | | | | |
| Ex. | R10 | R2 | R3 | Pureté | tr (min.) | [M+H] ⁺ |
| 2463 |  |  |  | 86,6 | 3,96 | 487,31 |
| 2464 |  |  |  | 58,7 | 4 | 507,27 |
| 2465 |  |  |  | 64,9 | 4,48 | 591,22 |
| 2466 |  |  |  | 40,3 | 4 | 565,25 |
| 2467 |  |  |  | 91,3 | 4,12 | 501,31 |

| <div style="display: flex; align-items: center; justify-content: center;">  <div style="margin-left: 10px;">Chiral</div> </div> | | | | | | |
|--|-----|----|----|------------|-----------|--------------------|
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2468 | | | | 61,2 | 4,14 | 521,25 |
| 2469 | | | | 62,4 | 4,62 | 605,25 |
| 2470 | | | | 33,1 | 4,13 | 579,27 |
| 2471 | | | | 87,3 | 4,01 | 501,31 |
| 2472 | | | | 54,0 | 4,05 | 521,25 |
| 2473 | | | | 69,1 | 4,51 | 605,26 |
| 2474 | | | | 35,4 | 4,04 | 579,27 |
| 2475 | | | | 88,4 | 4,18 | 515,31 |
| 2476 | | | | 68,0 | 4,19 | 535,28 |
| 2477 | | | | 72,9 | 4,64 | 619,25 |
| 2478 | | | | 32,6 | 4,17 | 593,28 |
| 2479 | | | | 92,7 | 4,18 | 555,33 |

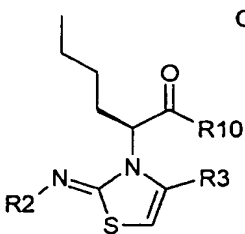
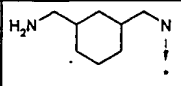
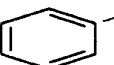
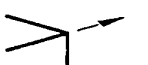
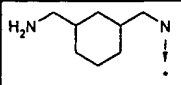
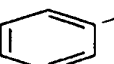
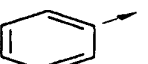
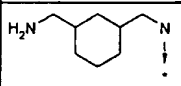
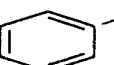
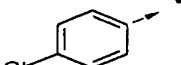
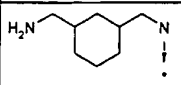
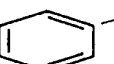
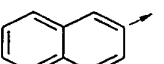
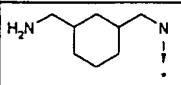
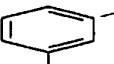

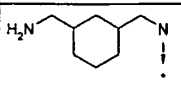
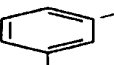
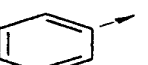
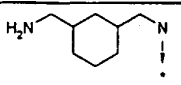
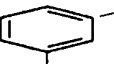
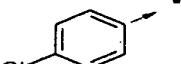
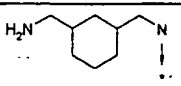
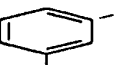
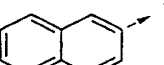
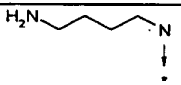
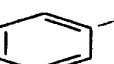

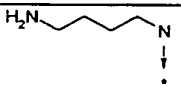
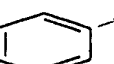
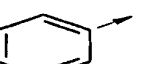
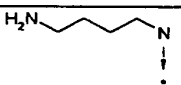
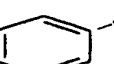
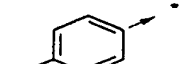
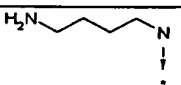
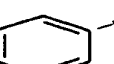
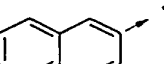
| <div style="text-align: center;">  <p>Chiral</p> </div> | | | | | | |
|--|---|---|---|------------|-----------|--------------------|
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2480 |  |  |  | 59,4 | 4,24 | 575,29 |
| 2481 |  |  |  | 71,8 | 4,72 | 659,33 |
| 2482 |  |  |  | 36,4 | 4,2 | 633,44 |
| 2483 |  |  |  | 92,4 | 4,36 | 569,34 |
| 2484 |  |  |  | 62,9 | 4,38 | 589,32 |
| 2485 |  |  |  | 71,9 | 4,82 | 673,33 |
| 2486 |  |  |  | 32,2 | 4,36 | 647,19 |
| 2487 |  |  |  | 90,2 | 4,14 | 549,28 |
| 2488 |  |  |  | 59,7 | 4,22 | 569,24 |
| 2489 |  |  |  | 66,6 | 4,7 | 653,25 |
| 2490 |  |  |  | 34,5 | 4,22 | 627,27 |
| 2491 |  |  |  | 91,3 | 4,32 | 563,30 |

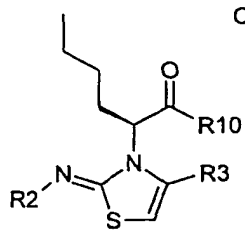
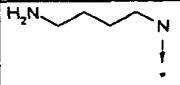
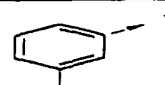
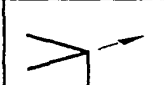
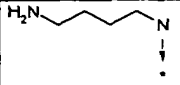
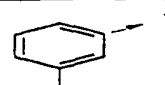
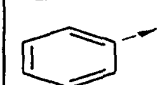
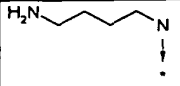
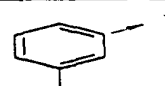
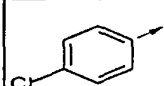
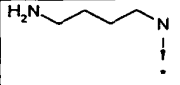
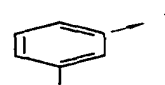
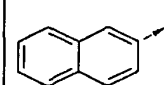
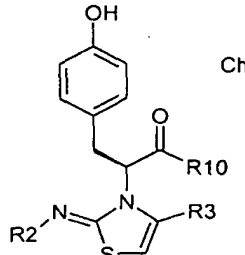
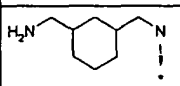
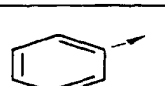
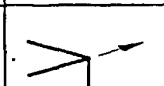
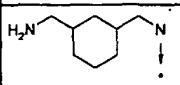
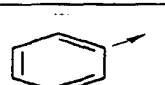
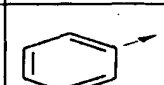
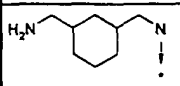
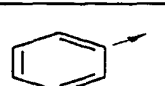
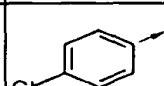
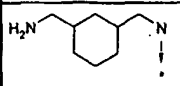
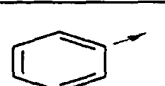
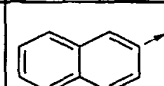
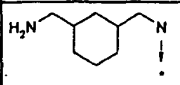
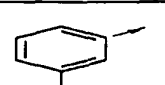
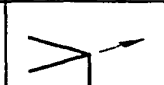
| <div style="display: flex; align-items: center; justify-content: center;">  <div style="margin-left: 10px;">Chiral</div> </div> | | | | | | |
|--|---|---|---|------------|-----------|--------------------|
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2492 |  |  |  | 60,8 | 4,35 | 583,26 |
| 2493 |  |  |  | 73,3 | 4,8 | 667,27 |
| 2494 |  |  |  | 32,9 | 4,34 | 641,29 |
| 2495 |  |  |  | 60,4 | 3,94 | 499,30 |
| 2496 |  |  |  | 87,0 | 3,92 | 519,24 |
| 2497 |  |  |  | 84,4 | 4,41 | 603,24 |
| 2498 |  |  |  | 81,4 | 3,94 | 577,26 |
| 2499 |  |  |  | 73,9 | 4,12 | 513,31 |
| 2500 |  |  |  | 91,5 | 4,09 | 533,26 |
| 2501 |  |  |  | 89,6 | 4,54 | 617,26 |
| 2502 |  |  |  | 85,4 | 4,09 | 591,27 |

| <div style="text-align: center;"> <p>Chiral</p>  </div> | | | | | | |
|--|---|---|---|------------|-----------|--------------------|
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2503 |  |  |  | 77,7 | 3,8 | 471,39 |
| 2504 |  |  |  | 37,7 | 3,82 | 491,34 |
| 2505 |  |  |  | 79,7 | 4,09 | 525,28 |
| 2506 |  |  |  | 58,5 | 4,23 | 541,33 |
| 2507 |  |  |  | 84,6 | 4,0 | 485,38 |
| 2508 |  |  |  | 73,2 | 4,0 | 505,34 |
| 2509 |  |  |  | 82,3 | 4,25 | 539,29 |
| 2510 |  |  |  | 74,2 | 4,37 | 555,34 |
| 2511 |  |  |  | 57,5 | 3,56 | 417,32 |
| 2512 |  |  |  | 66,9 | 3,56 | 437,27 |
| 2513 |  |  |  | 69,0 | 3,85 | 471,26 |
| 2514 |  |  |  | 71,1 | 4,0 | 487,33 |

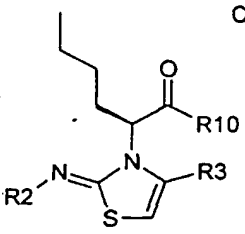
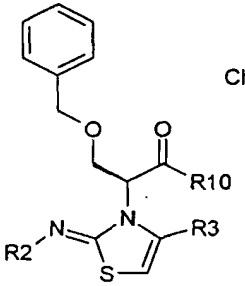
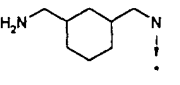
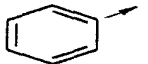

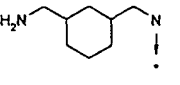
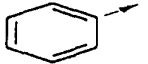
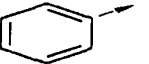
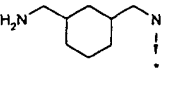
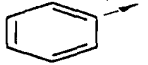
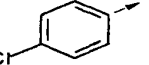
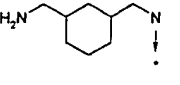
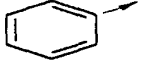
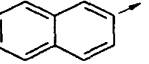
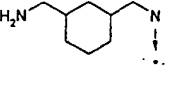
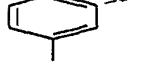

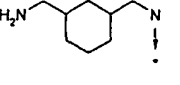

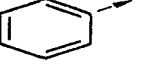
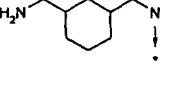

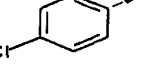
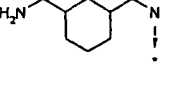
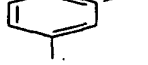
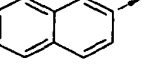
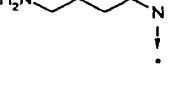
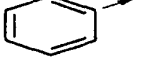

| <div style="text-align: center;"> <p>Chiral</p>  </div> | | | | | | |
|--|---|---|---|------------|-----------|--------------------|
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2515 |  |  |  | 76,4 | 3,76 | 431,34 |
| 2516 |  |  |  | 67,8 | 3,75 | 451,30 |
| 2517 |  |  |  | 75,2 | 4,02 | 485,27 |
| 2518 |  |  |  | 70,4 | 4,16 | 501,32 |
| <div style="text-align: center;"> <p>Chiral</p>  </div> | | | | | | |
| Ex. | R10 | R2 | R3 | Pureté | tr (min.) | [M+H] ⁺ |
| 2519 |  |  |  | 76,4 | 3,73 | 471,38 |
| 2520 |  |  |  | 67,9 | 3,76 | 491,33 |
| 2521 |  |  |  | 75,0 | 4,04 | 525,28 |
| 2522 |  |  |  | 71,2 | 4,17 | 541,34 |
| 2523 |  |  |  | 87,9 | 3,94 | 485,39 |
| 2524 |  |  |  | 72,2 | 3,94 | 505,34 |

[illegible]

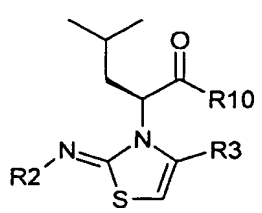
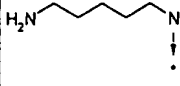
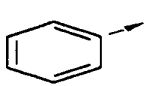
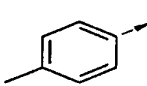
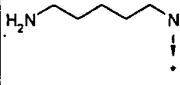
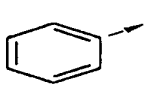
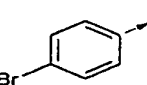
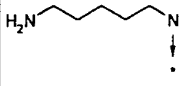
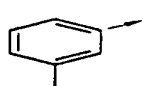

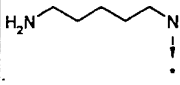
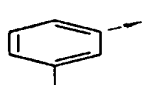
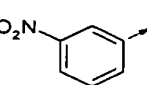
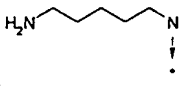
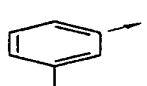
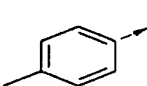
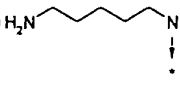
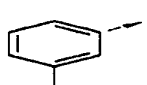
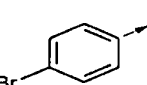
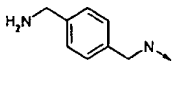
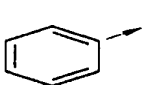

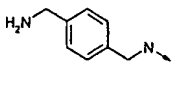
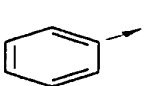
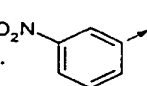
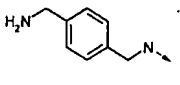
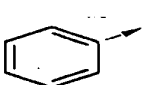
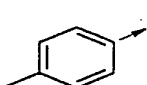
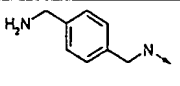
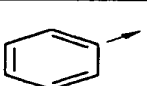
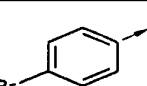
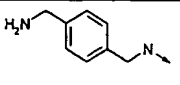
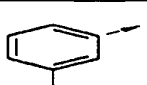
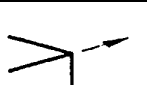
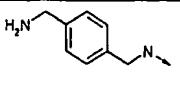
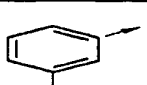
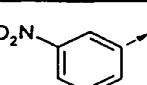
| <div style="text-align: center;"> <p>Chiral</p>  </div> | | | | | | |
|--|---|---|---|------------|-----------|--------------------|
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2535 |  |  |  | 84,7 | 3,83 | 505,34 |
| 2536 |  |  |  | 75,2 | 3,89 | 525,30 |
| 2537 |  |  |  | 75,9 | 4,17 | 559,25 |
| 2538 |  |  |  | 70,4 | 4,29 | 575,30 |
| 2539 |  |  |  | 90,9 | 4,03 | 519,35 |
| 2540 |  |  |  | 71,5 | 4,04 | 539,31 |
| 2541 |  |  |  | 79,2 | 4,31 | 573,25 |
| 2542 |  |  |  | 80,6 | 4,43 | 589,33 |
| 2543 |  |  |  | 77,2 | 3,62 | 451,30 |
| 2544 |  |  |  | 69,9 | 3,65 | 471,27 |
| 2545 |  |  |  | 74,8 | 3,92 | 505,22 |
| 2546 |  |  |  | 66,7 | 4,06 | 521,26 |

| <div style="text-align: center;">  <p>Chiral</p> </div> | | | | | | |
|--|---|---|---|------------|-----------|--------------------|
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2547 |  |  |  | 83,5 | 3,82 | 465,31 |
| 2548 |  |  |  | 72,9 | 3,82 | 485,28 |
| 2549 |  |  |  | 33,1 | 4,1 | 519,23 |
| 2550 |  |  |  | 51,2 | 4,22 | 535,28 |
| <div style="text-align: center;">  <p>Chiral</p> </div> | | | | | | |
| Ex. | R10 | R2 | R3 | Pureté | tr (min.) | [M+H] ⁺ |
| 2551 |  |  |  | 79,8 | 3,45 | 521,33 |
| 2552 |  |  |  | 72,6 | 4,14 | 541,29 |
| 2553 |  |  |  | 63,7 | 3,79 | 575,24 |
| 2554 |  |  |  | 73,8 | 3,93 | 591,31 |
| 2555 |  |  |  | 91,2 | 3,65 | 535,35 |

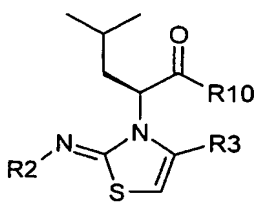
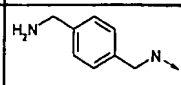

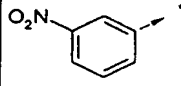
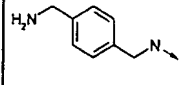
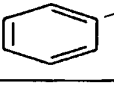
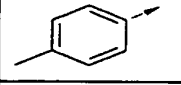
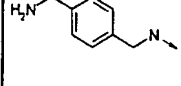
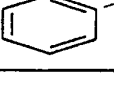
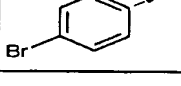
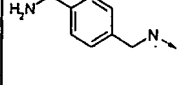
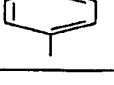
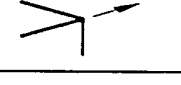
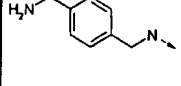
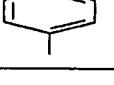
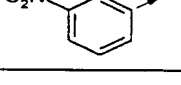
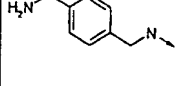
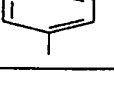
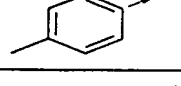
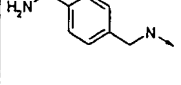
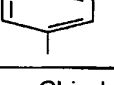
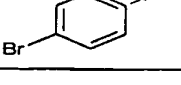
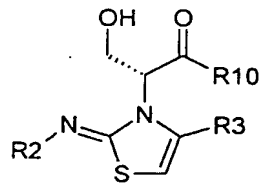
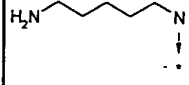
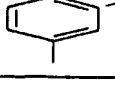

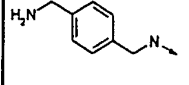
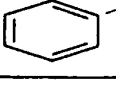
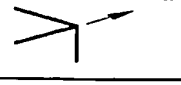
| <div style="text-align: center;"> <p>Chiral</p> </div> | | | | | | |
|--|-----|----|----|------------|-----------|--------------------|
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2556 | | | | 75,6 | 3,66 | 555,29 |
| 2557 | | | | 78,3 | 3,94 | 589,26 |
| 2558 | | | | 69,7 | 4,06 | 605,35 |
| 2559 | | | | 69,1 | 3,22 | 467,29 |
| 2560 | | | | 73,7 | 3,26 | 487,27 |
| 2561 | | | | 79,6 | 3,56 | 521,20 |
| 2562 | | | | 73,5 | 3,72 | 537,27 |
| 2563 | | | | 86,1 | 3,42 | 481,31 |
| 2564 | | | | 77,1 | 3,43 | 501,29 |
| 2565 | | | | 83,0 | 3,73 | 535,22 |
| 2566 | | | | 71,9 | 3,86 | 551,28 |

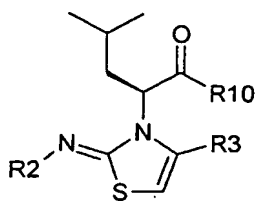
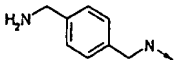
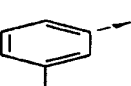

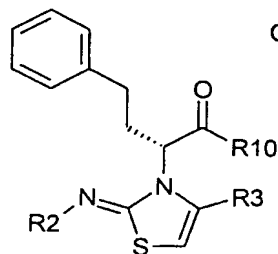
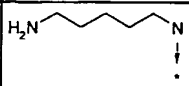
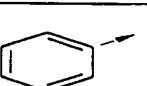

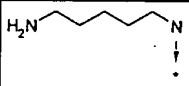
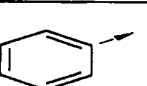
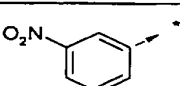
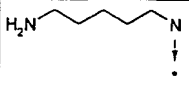
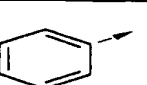
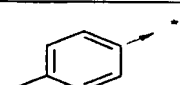
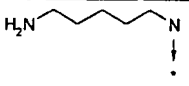
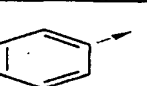
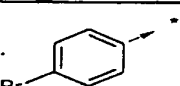
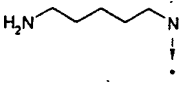
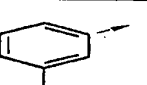

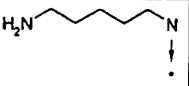
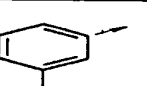
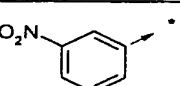
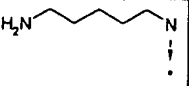
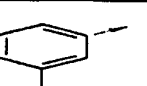
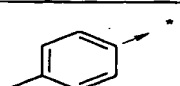
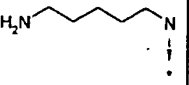
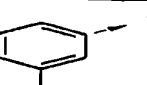
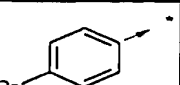
| <div style="text-align: center;"> <p>Chiral</p>  </div> | | | | | | |
|--|---|---|---|------------|-----------|--------------------|
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| <div style="text-align: center;"> <p>Chiral</p>  </div> | | | | | | |
| Ex. | R10 | R2 | R3 | Pureté | tr (min.) | [M+H] ⁺ |
| 2567 |  |  |  | 82,0 | 3,99 | 535,3 |
| 2568 |  |  |  | 40,6 | 4,04 | 555,31 |
| 2569 |  |  |  | 47,5 | 4,31 | 589,26 |
| 2570 |  |  |  | 37,4 | 4,43 | 605,33 |
| 2571 |  |  |  | 79,3 | 4,18 | 549,35 |
| 2572 |  |  |  | 38,8 | 4,19 | 569,30 |
| 2573 |  |  |  | 51,6 | 4,46 | 603,28 |
| 2574 |  |  |  | 36 | 4,55 | 619,35 |
| 2575 |  |  |  | 61,4 | 3,77 | 481,30 |

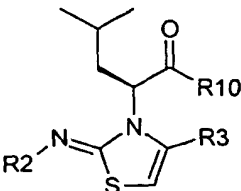
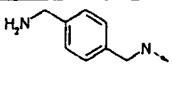
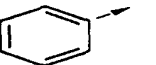

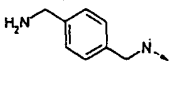
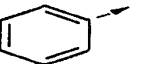
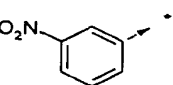
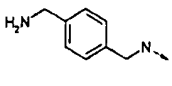
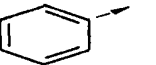
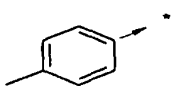
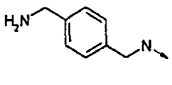
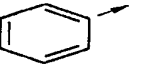
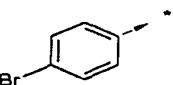
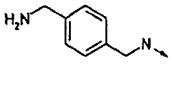
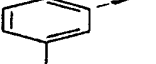

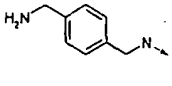
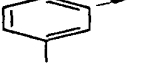
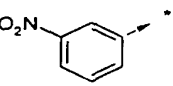
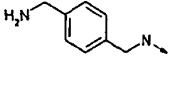
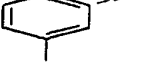
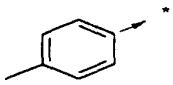
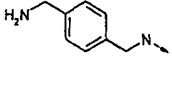
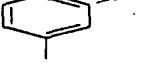
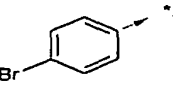
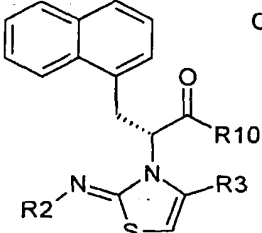
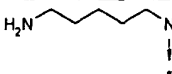
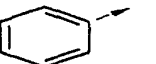

| <div style="text-align: center;"> <p>Chiral</p> </div> | | | | | | |
|--|-----|----|----|------------|-----------|--------------------|
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2576 | | | | 37,9 | 3,81 | 501,28 |
| 2577 | | | | 45,6 | 4,08 | 535,21 |
| 2578 | | | | 34,9 | 4,2 | 551,27 |
| 2579 | | | | 66,2 | 3,95 | 495,31 |
| 2580 | | | | 44,8 | 3,96 | 515,25 |
| 2581 | | | | 54,4 | 4,23 | 549,24 |
| 2582 | | | | 36,5 | 4,34 | 565,28 |

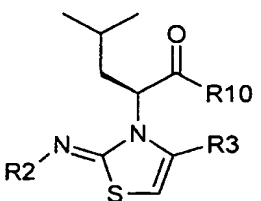
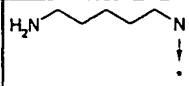
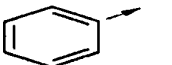
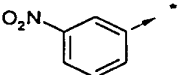
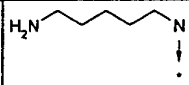
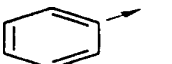
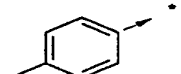
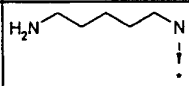
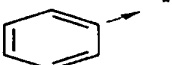
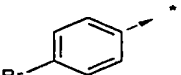
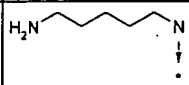
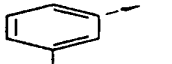

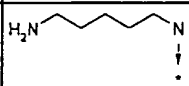
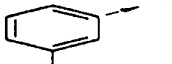
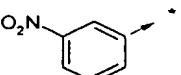
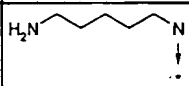
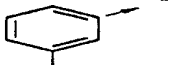
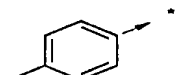
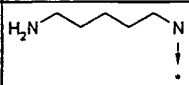
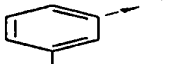
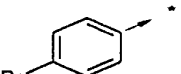
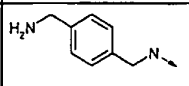
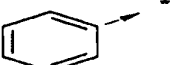

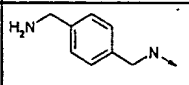
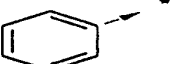
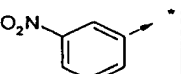
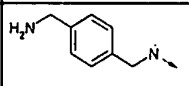
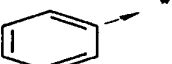
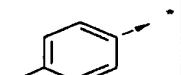
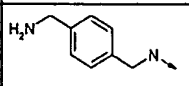
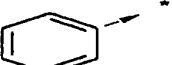
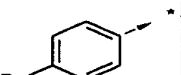
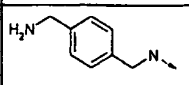
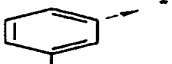
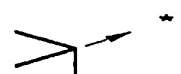
| Chiral | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
|  | | | | | | |
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2583 |  |  |  | 52,2 | 3,91 | 465,24 |
| 2584 |  |  |  | 55,9 | 4 | 529,14 |
| 2585 |  |  |  | 51,3 | 3,9 | 445,29 |
| 2586 |  |  |  | 57,4 | 3,9 | 510,24 |
| 2587 |  |  |  | 54,3 | 4,04 | 479,28 |
| 2588 |  |  |  | 61,7 | 4,12 | 543,15 |
| 2589 |  |  |  | 80,0 | 3,82 | 465,25 |
| 2590 |  |  |  | 61,6 | 3,85 | 530,20 |
| 2591 |  |  |  | 61,1 | 3,97 | 499,25 |
| 2592 |  |  |  | 61,3 | 4,06 | 563,1 |
| 2593 |  |  |  | 84,2 | 3,96 | 479,29 |
| 2594 |  |  |  | 58,8 | 3,98 | 544,20 |

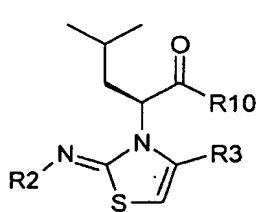
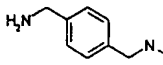

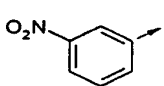
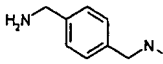
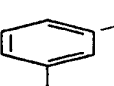
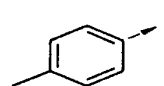
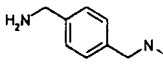
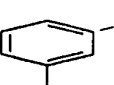
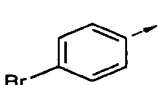
| Chiral | | | | | | |
|--------|-----|----|----|------------|-----------|--------------------|
| | | | | | | |
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2595 | | | | 61,5 | 4,1 | 513,26 |
| 2596 | | | | 65,5 | 4,19 | 577,1 |
| Chiral | | | | | | |
| | | | | | | |
| Ex. | R10 | R2 | R3 | Pureté | tr (min.) | [M+H] ⁺ |
| 2597 | | | | 28,6 | 3,7 | 514,16 |
| 2598 | | | | 39,0 | 3,83 | 483,24 |
| 2599 | | | | 39,9 | 3,92 | 547,1 |
| 2600 | | | | 53,5 | 3,8 | 463,26 |
| 2601 | | | | 28,8 | 3,83 | 528,19 |
| 2602 | | | | 31,0 | 3,96 | 497,24 |
| 2603 | | | | 34,0 | 4,05 | 561,1 |
| 2604 | | | | 64,5 | 3,72 | 483,24 |

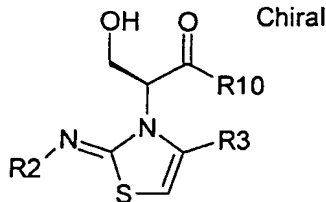
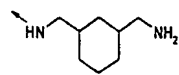
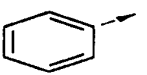
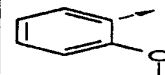
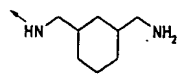
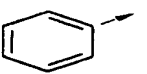
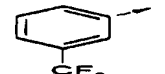
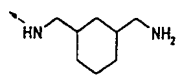
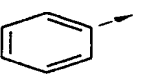
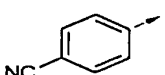
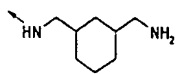
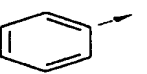
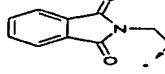
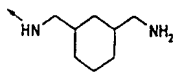
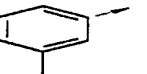
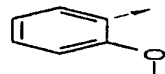
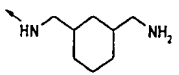
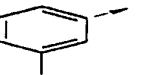
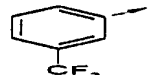
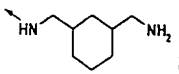
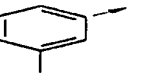
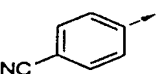
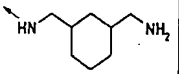

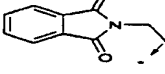
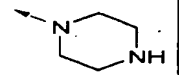
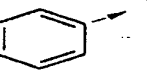
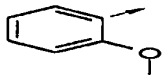
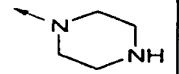
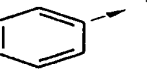
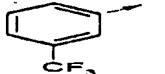
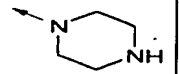
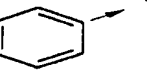
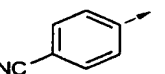
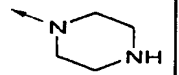
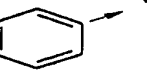
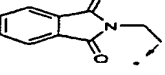
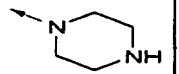
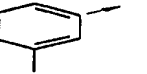
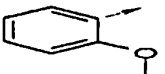
| Chiral | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
|  | | | | | | |
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2605 |  |  |  | 25,4 | 3,78 | 548,12 |
| 2606 |  |  |  | 36,8 | 3,9 | 517,20 |
| 2607 |  |  |  | 31,2 | 4 | 581,1 |
| 2608 |  |  |  | 72,8 | 3,86 | 497,24 |
| 2609 |  |  |  | 31,7 | 3,9 | 562,17 |
| 2610 |  |  |  | 40,1 | 4,02 | 531,21 |
| 2611 |  |  |  | 38,2 | 4,12 | 595,1 |
| Chiral | | | | | | |
|  | | | | | | |
| Ex. | R10 | R2 | R3 | Pureté | tr (min.) | [M+H] ⁺ |
| 2612 |  |  |  | 45,2 | 3,49 | 419,24 |
| 2613 |  |  |  | 56,6 | 3,39 | 439,21 |

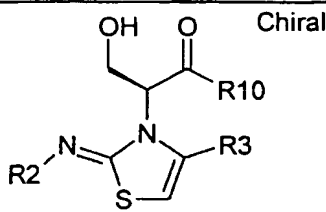
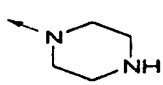
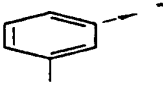
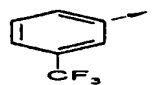
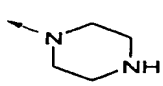
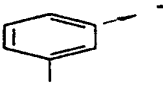
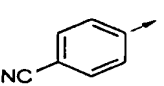
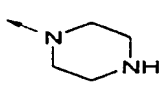
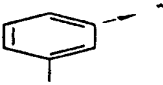
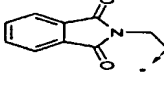
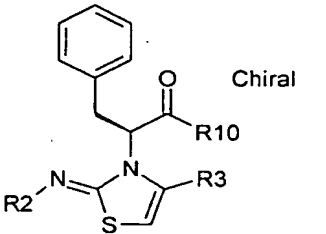
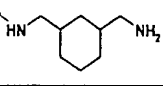
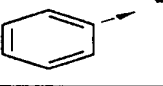
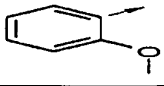
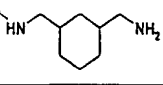
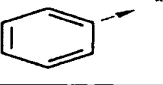
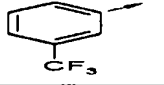
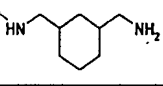
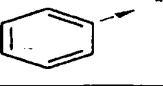
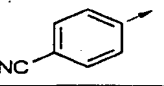
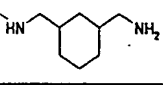
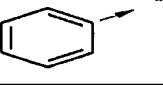
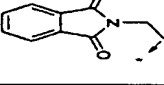
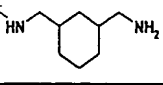

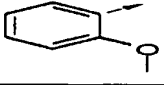
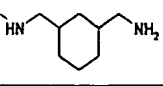

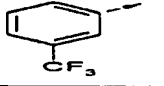
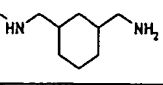

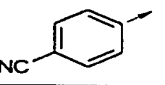
| Chiral | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
|  | | | | | | |
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2614 |  |  |  | 58,6 | 3,56 | 453,23 |
| Chiral | | | | | | |
|  | | | | | | |
| Ex. | R10 | R2 | R3 | Pureté | tr (min.) | [M+H] ⁺ |
| 2615 |  |  |  | 65,5 | 3,96 | 479,28 |
| 2616 |  |  |  | 50,5 | 4 | 544,19 |
| 2617 |  |  |  | 55,7 | 4,11 | 513,26 |
| 2618 |  |  |  | 55,5 | 4,2 | 577,13 |
| 2619 |  |  |  | 67,1 | 4,09 | 493,30 |
| 2620 |  |  |  | 53,7 | 4,11 | 558,20 |
| 2621 |  |  |  | 55,5 | 4,22 | 527,27 |
| 2622 |  |  |  | 72,1 | 4,3 | 591,13 |

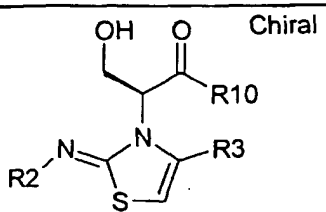
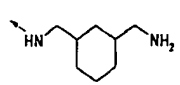
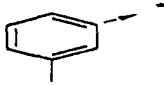
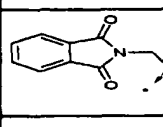
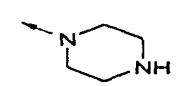
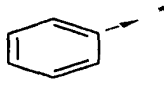
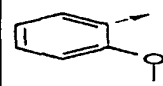
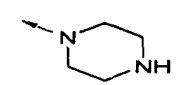
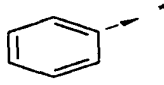
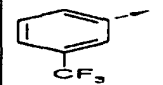
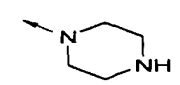
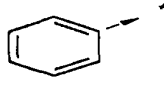
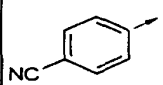
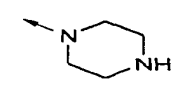
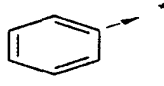
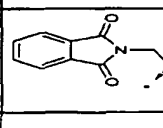
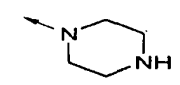
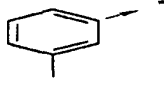
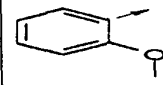
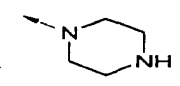
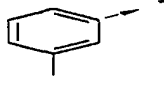
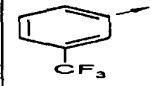
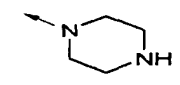
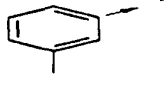
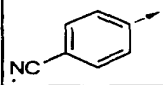
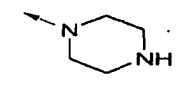
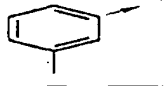
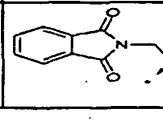
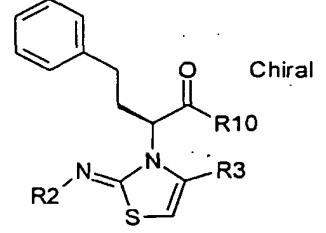
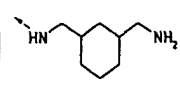
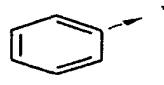
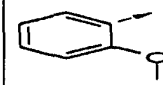
| <div style="text-align: center;">  <p>Chiral</p> </div> | | | | | | |
|--|---|---|---|------------|-----------|--------------------|
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2623 |  |  |  | 81,1 | 4,02 | 513,26 |
| 2624 |  |  |  | 51,0 | 4,08 | 578,18 |
| 2625 |  |  |  | 54,1 | 4,17 | 547,21 |
| 2626 |  |  |  | 65,2 | 4,26 | 611,11 |
| 2627 |  |  |  | 83,9 | 4,16 | 527,27 |
| 2628 |  |  |  | 60,2 | 4,18 | 592,21 |
| 2629 |  |  |  | 63 | 4,3 | 561,21 |
| 2630 |  |  |  | 74,0 | 4,36 | 625,11 |
| <div style="text-align: center;">  <p>Chiral</p> </div> | | | | | | |
| Ex. | R10 | R2 | R3 | Pureté | tr (min.) | [M+H] ⁺ |
| 2631 |  |  |  | 83,1 | 4,06 | 515,26 |

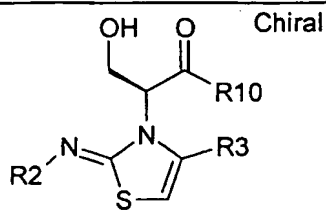
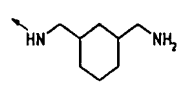
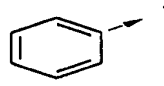

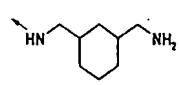
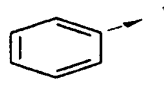
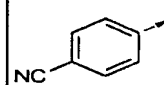
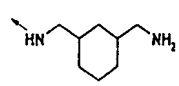
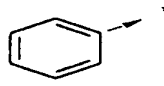
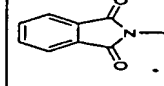
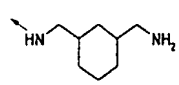
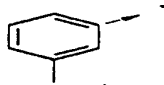
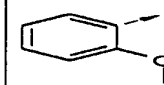
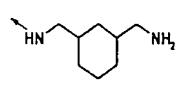
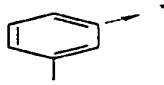
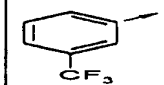
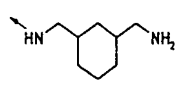
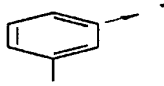
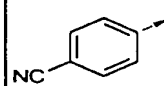
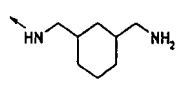
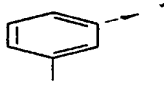
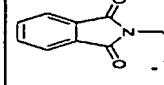
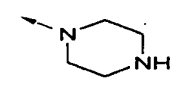
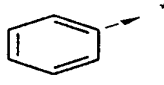
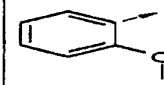
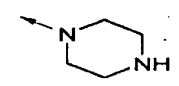
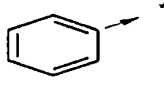
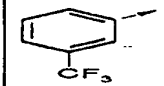
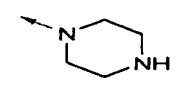
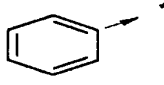
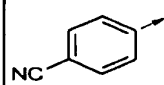
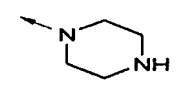
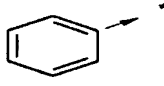
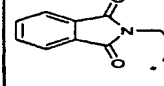
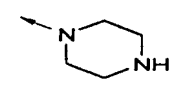
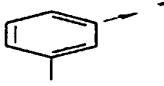
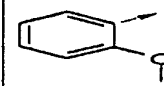
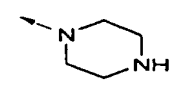
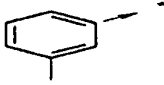
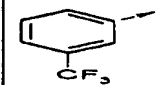
| Chiral | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
|  | | | | | | |
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2632 |  |  |  | 57,8 | 4,13 | 580,20 |
| 2633 |  |  |  | 37,4 | 4,22 | 549,23 |
| 2634 |  |  |  | 43,3 | 4,31 | 613,12 |
| 2635 |  |  |  | 86,7 | 4,18 | 529,27 |
| 2636 |  |  |  | 64,3 | 4,22 | 594,19 |
| 2637 |  |  |  | 37,0 | 4,32 | 563,25 |
| 2638 |  |  |  | 44,3 | 4,4 | 627,15 |
| 2639 |  |  |  | 86,9 | 4,14 | 549,23 |
| 2640 |  |  |  | 53,4 | 4,23 | 614,17 |
| 2641 |  |  |  | 37 | 4,3 | 583,21 |
| 2642 |  |  |  | 45,7 | 4,4 | 647,11 |
| 2643 |  |  |  | 88,9 | 4,24 | 563,25 |

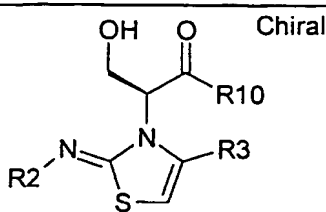
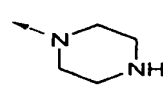
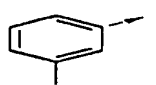
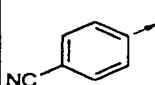
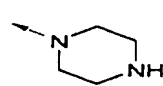
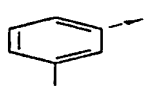
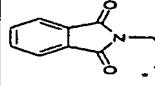
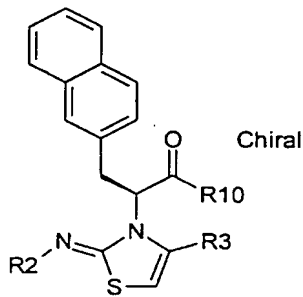
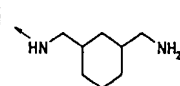
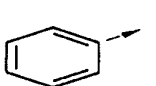
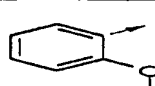
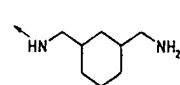
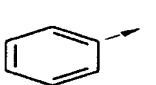
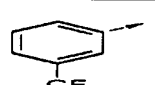
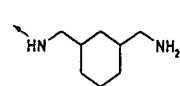
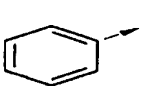
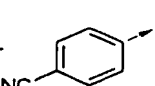
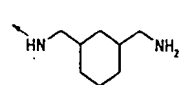
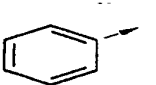
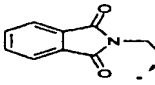
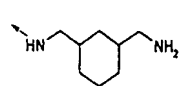
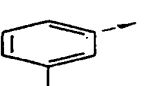
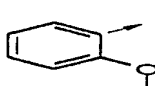
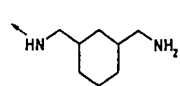
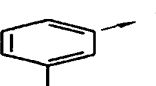
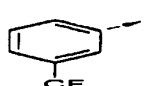
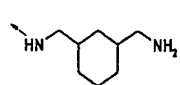
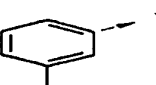
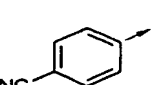
| Chiral | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
|  | | | | | | |
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2644 |  |  |  | 57,3 | 4,3 | 628,19 |
| 2645 |  |  |  | 39,4 | 4,39 | 597,22 |
| 2646 |  |  |  | 44,1 | 4,48 | 661,15 |

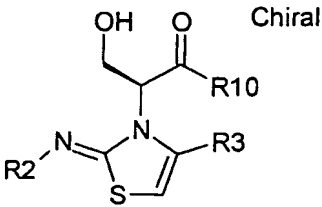
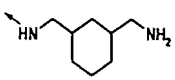
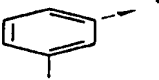
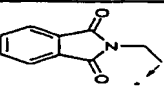
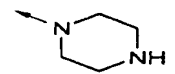
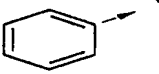
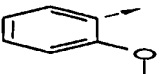
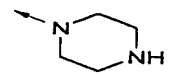
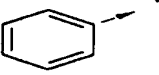
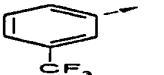
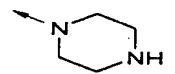
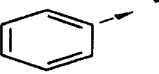
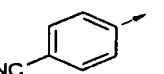
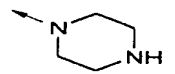
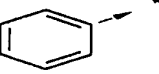
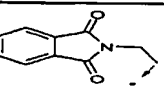
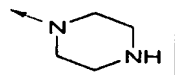
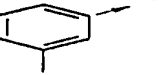
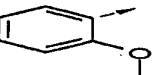
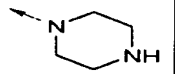
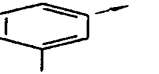
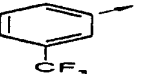
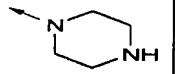
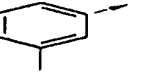
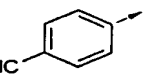
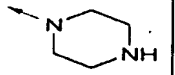
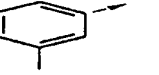
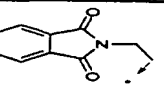
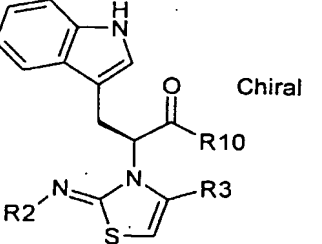
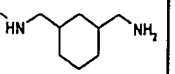
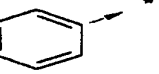
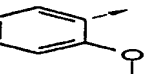
| <div style="text-align: center;">  <p>Chiral</p> </div> | | | | | | |
|--|---|---|---|------------|-----------|--------------------|
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2647 |  |  |  | 25,6 | 3,18 | 495,23 |
| 2648 |  |  |  | 33,1 | 3,59 | 533,15 |
| 2649 |  |  |  | 27,0 | 3 | 490,2 |
| 2650 |  |  |  | 33,6 | 3,14 | 562,16 |
| 2651 |  |  |  | 27,2 | 3,36 | 509,21 |
| 2652 |  |  |  | 32,5 | 3,76 | 547,16 |
| 2653 |  |  |  | 29,7 | 3,2 | 504,2 |
| 2654 |  |  |  | 34,8 | 3,32 | 576,21 |
| 2655 |  |  |  | 73,7 | 2,93 | 439,15 |
| 2656 |  |  |  | 60,6 | 3,37 | 477,14 |
| 2657 |  |  |  | 65,1 | 2,7 | 434,1 |
| 2658 |  |  |  | 69,3 | 2,92 | 506,14 |
| 2659 |  |  |  | 72,5 | 3,14 | 453,17 |

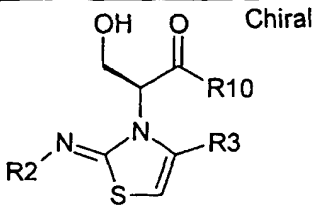
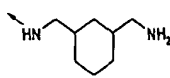
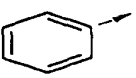

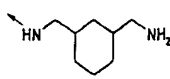
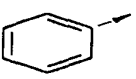
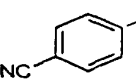
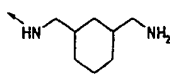
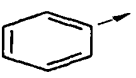
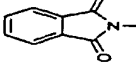
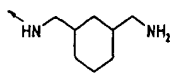
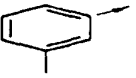
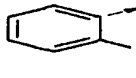
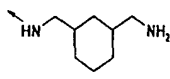
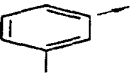

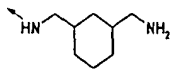
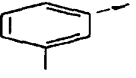
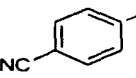
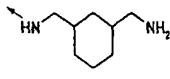

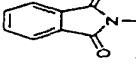
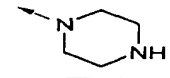
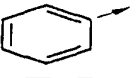
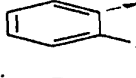
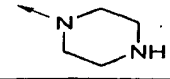
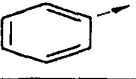
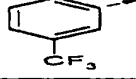
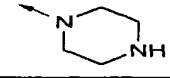
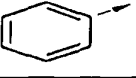
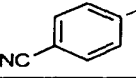
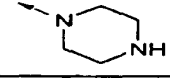
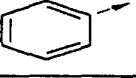
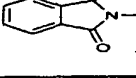
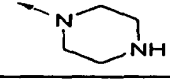
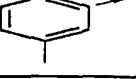
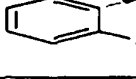
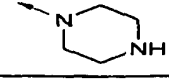
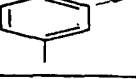

| <div style="text-align: center;">  <p>Chiral</p> </div> | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2660 |  |  |  | 77,2 | 3,55 | 491,14 |
| 2661 |  |  |  | 66,4 | 2,9 | 448,1 |
| 2662 |  |  |  | 65,9 | 3,14 | 520,15 |
| <div style="text-align: center;">  <p>Chiral</p> </div> | | | | | | |
| Ex. | R10 | R2 | R3 | Pureté | tr (min.) | [M+H] ⁺ |
| 2663 |  |  |  | 63,3 | 3,82 | 555,21 |
| 2664 |  |  |  | 85,8 | 4,24 | 593,19 |
| 2665 |  |  |  | 87,5 | 3,8 | 550,2 |
| 2666 |  |  |  | 75,1 | 3,78 | 622,22 |
| 2667 |  |  |  | 66,1 | 3,98 | 569,21 |
| 2668 |  |  |  | 87,2 | 4,35 | 607,21 |
| 2669 |  |  |  | 82,9 | 3,9 | 564,2 |

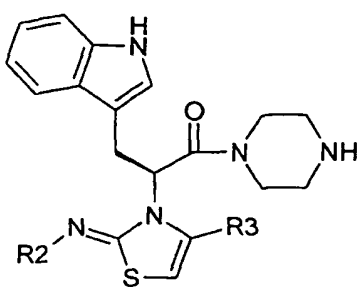
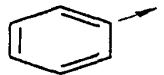
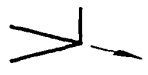
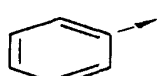

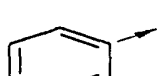
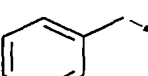
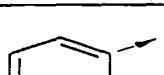
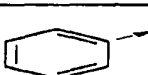
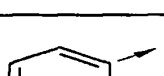
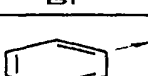
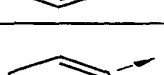
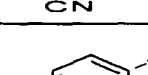
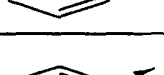
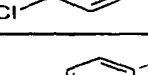
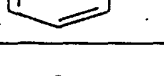
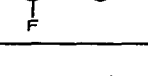
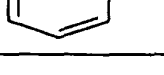
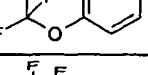

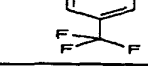
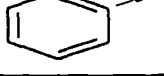
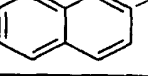
| <div style="text-align: center;">  <p>Chiral</p> </div> | | | | | | |
|--|---|---|---|------------|-----------|--------------------|
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2670 |  |  |  | 79,1 | 3,94 | 636,25 |
| 2671 |  |  |  | 82,0 | 3,55 | 499,18 |
| 2672 |  |  |  | 82,2 | 3,93 | 537,14 |
| 2673 |  |  |  | 86,4 | 3,4 | 494,2 |
| 2674 |  |  |  | 90,4 | 3,52 | 566,15 |
| 2675 |  |  |  | 88,0 | 3,72 | 513,19 |
| 2676 |  |  |  | 88,8 | 4,08 | 551,15 |
| 2677 |  |  |  | 88,9 | 3,6 | 508,2 |
| 2678 |  |  |  | 93,6 | 3,7 | 580,17 |
| <div style="text-align: center;">  <p>Chiral</p> </div> | | | | | | |
| Ex. | R10 | R2 | R3 | Pureté | tr (min.) | [M+H] ⁺ |
| 2679 |  |  |  | 59,5 | 4 | 569,20 |

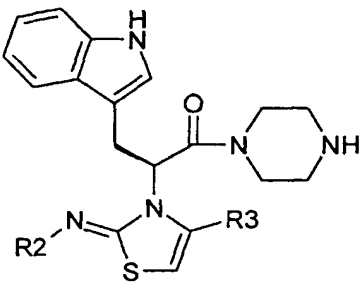
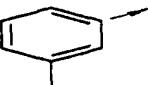
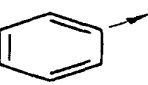
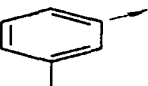
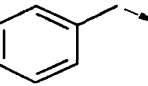
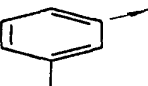
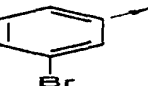
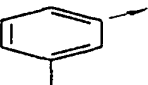

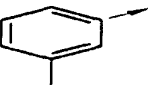
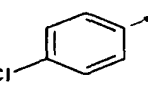
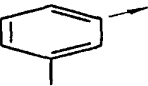
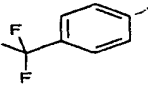
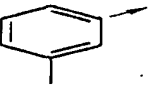
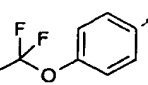
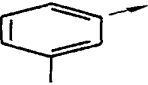
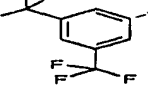
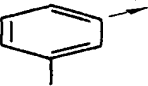
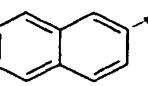
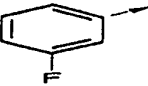
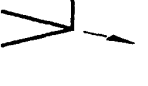
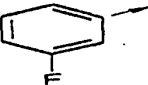
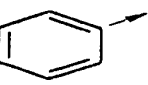
| <div style="text-align: center;">  <p>Chiral</p> </div> | | | | | | |
|--|---|---|---|------------|-----------|--------------------|
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2680 |  |  |  | 82,6 | 4,37 | 607,21 |
| 2681 |  |  |  | 74,9 | 3,9 | 564,2 |
| 2682 |  |  |  | 70,6 | 3,94 | 636,26 |
| 2683 |  |  |  | 55,3 | 4,14 | 583,24 |
| 2684 |  |  |  | 85,3 | 4,49 | 621,22 |
| 2685 |  |  |  | 86,1 | 4,1 | 578,2 |
| 2686 |  |  |  | 72,7 | 4,09 | 650,26 |
| 2687 |  |  |  | 87,5 | 3,74 | 513,20 |
| 2688 |  |  |  | 86,1 | 4,1 | 551,16 |
| 2689 |  |  |  | 87,4 | 3,6 | 508,2 |
| 2690 |  |  |  | 87,9 | 3,73 | 580,18 |
| 2691 |  |  |  | 87,2 | 3,89 | 527,21 |
| 2692 |  |  |  | 88,3 | 4,24 | 565,15 |

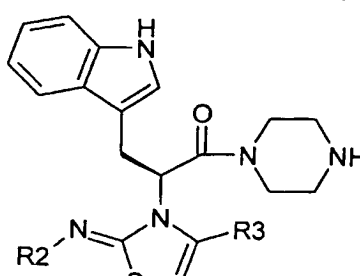
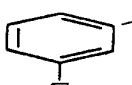
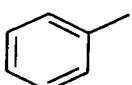
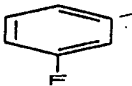
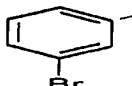
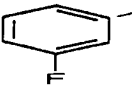


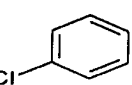

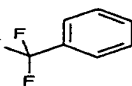

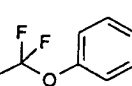

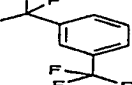
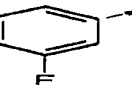
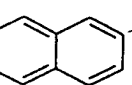
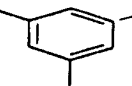
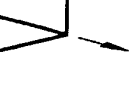
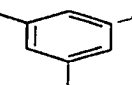
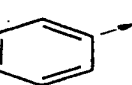
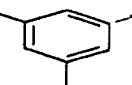
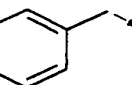
| <div style="text-align: center;">  <p>Chiral</p> </div> | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2693 |  |  |  | 89,8 | 3,8 | 522,2 |
| 2694 |  |  |  | 92,5 | 3,86 | 594,17 |
| <div style="text-align: center;">  <p>Chiral</p> </div> | | | | | | |
| Ex. | R10 | R2 | R3 | Pureté | tr (min.) | [M+H] ⁺ |
| 2695 |  |  |  | 69,9 | 4,14 | 605,25 |
| 2696 |  |  |  | 81,8 | 4,55 | 643,21 |
| 2697 |  |  |  | 65,3 | 4,1 | 600,2 |
| 2698 |  |  |  | 69,2 | 4,11 | 672,25 |
| 2699 |  |  |  | 74,0 | 4,28 | 619,24 |
| 2700 |  |  |  | 69,3 | 4,67 | 657,24 |
| 2701 |  |  |  | 75,9 | 4,3 | 614,2 |

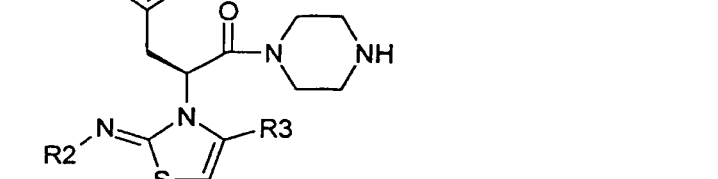
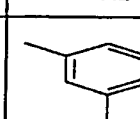
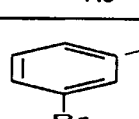
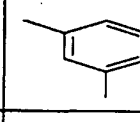
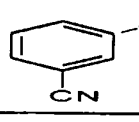
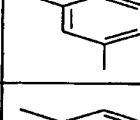
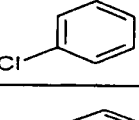
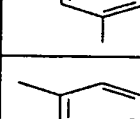
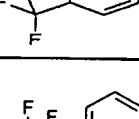
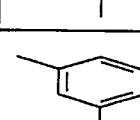
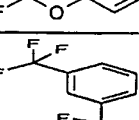
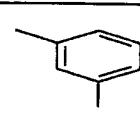
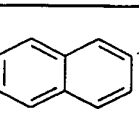


| <div style="text-align: center;">  <p>Chiral</p> </div> | | | | | | |
|--|---|---|---|------------|-----------|--------------------|
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2702 |  |  |  | 84,8 | 4,27 | 686,27 |
| 2703 |  |  |  | 86,6 | 3,91 | 549,16 |
| 2704 |  |  |  | 77,7 | 4,26 | 587,13 |
| 2705 |  |  |  | 69,4 | 3,8 | 544,1 |
| 2706 |  |  |  | 88,0 | 3,9 | 616,19 |
| 2707 |  |  |  | 79,9 | 4,06 | 563,18 |
| 2708 |  |  |  | 75,9 | 4,38 | 601,14 |
| 2709 |  |  |  | 62 | 3,9 | 603,2 |
| 2710 |  |  |  | 87,7 | 4,05 | 630,21 |
| <div style="text-align: center;">  <p>Chiral</p> </div> | | | | | | |
| Ex. | R10 | R2 | R3 | Pureté | tr (min.) | [M+H] ⁺ |
| 2711 |  |  |  | 56,8 | 3,85 | 594,20 |

| <div style="text-align: center;">  <p>Chiral</p> </div> | | | | | | |
|--|---|---|---|------------|-----------|--------------------|
| Ex. | R10 | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2712 |  |  |  | 69,7 | 4,18 | 632,22 |
| 2713 |  |  |  | 62,2 | 3,7 | 589,2 |
| 2714 |  |  |  | 79,2 | 3,76 | 661,23 |
| 2715 |  |  |  | 56,8 | 4 | 608,23 |
| 2716 |  |  |  | 70,5 | 4,31 | 646,23 |
| 2717 |  |  |  | 62 | 3,9 | 603,2 |
| 2718 |  |  |  | 76,9 | 3,92 | 675,26 |
| 2719 |  |  |  | 75,5 | 3,63 | 538,18 |
| 2720 |  |  |  | 79,4 | 3,96 | 576,13 |
| 2721 |  |  |  | 73 | 3,5 | 533,2 |
| 2722 |  |  |  | 87,0 | 3,56 | 605,17 |
| 2723 |  |  |  | 81,8 | 3,8 | 552,18 |
| 2724 |  |  |  | 80,1 | 4,11 | 590,15 |

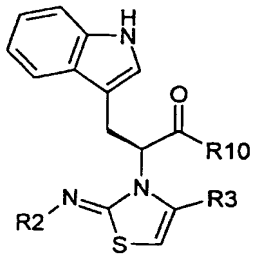
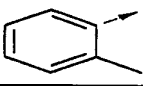
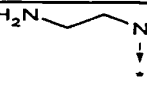
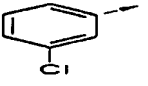
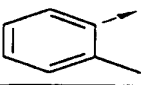
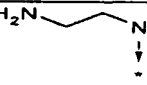
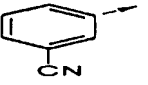
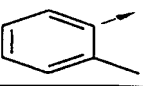
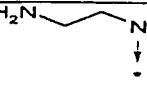
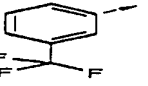
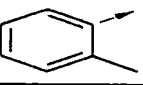
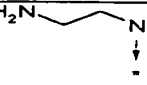
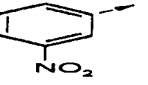
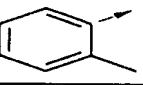
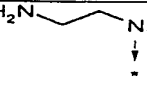
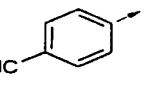
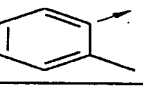
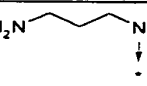
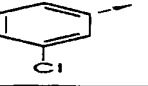
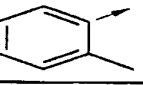
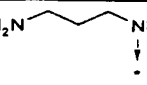
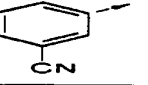
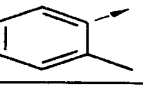
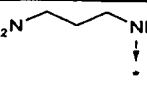
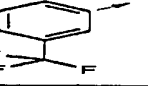
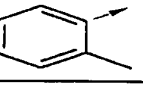
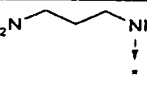
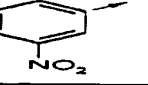
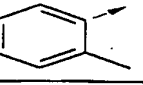
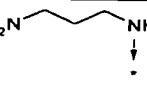
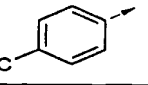
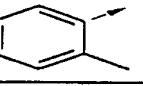
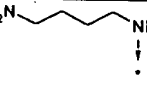
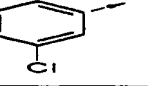
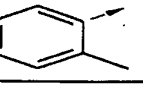
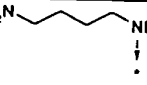
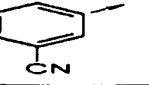
| Chiral | | | | | |
|---|---|---|------------|-----------|--------------------|
|  | | | | | |
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2727 |  |  | 73,7 | 4,7 | 488,3 |
| 2728 |  |  | 87,1 | 4,2 | 508,2 |
| 2729 |  |  | 90,3 | 4,3 | 522,3 |
| 2730 |  |  | 78,2 | 4,5 | 586,1 |
| 2731 |  |  | 73 | 4,1 | 533,2 |
| 2732 |  |  | 86,4 | 4,5 | 542,2 |
| 2733 |  |  | 77,7 | 4,6 | 576,2 |
| 2734 |  |  | 80 | 4,7 | 592,2 |
| 2735 |  |  | 76,4 | 4,9 | 644,2 |
| 2736 |  |  | 81,4 | 4,6 | 558,2 |
| 2737 |  |  | 79,8 | 4,4 | 502,3 |

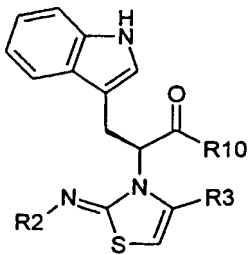
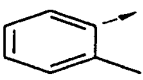
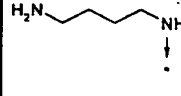
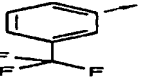
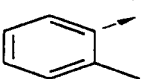
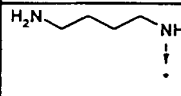
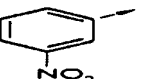
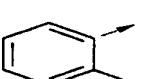
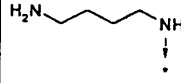
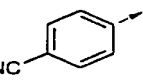
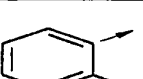
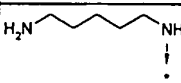
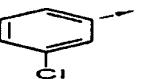
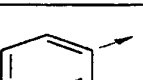
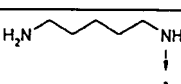
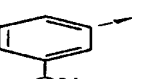
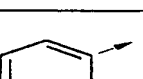
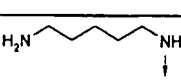
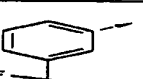
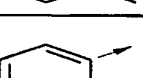
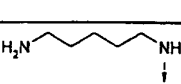
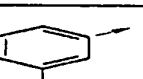
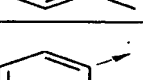
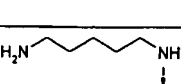
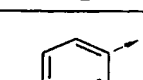
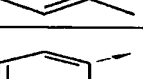
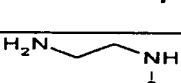
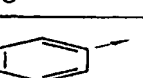
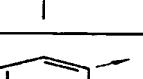
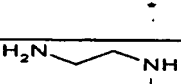
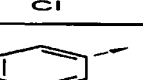
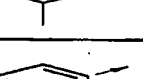
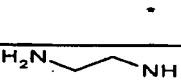
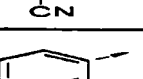
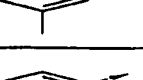
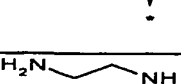
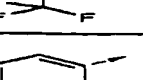
| <div style="text-align: center;">  <p>Chiral</p> </div> | | | | | |
|--|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2738 |  |  | 87,5 | 4,4 | 522,3 |
| 2739 |  |  | 91,4 | 4,5 | 536,3 |
| 2740 |  |  | 83,3 | 4,6 | 600,1 |
| 2741 |  |  | 82 | 4,3 | 547,2 |
| 2742 |  |  | 83,9 | 4,6 | 556,2 |
| 2743 |  |  | 85,4 | 4,7 | 590,2 |
| 2744 |  |  | 85,2 | 4,8 | 606,2 |
| 2745 |  |  | 82 | 4,3 | 658,2 |
| 2746 |  |  | 86,7 | 4,7 | 572,2 |
| 2747 |  |  | 31,6 | 4,3 | 506,3 |
| 2748 |  |  | 71,1 | 4,3 | 526,2 |

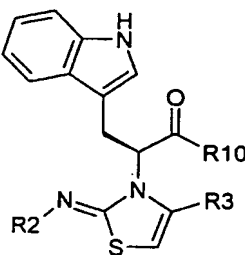
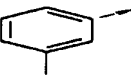
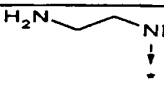
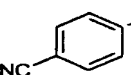
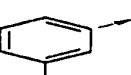
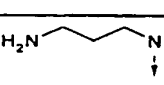
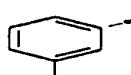
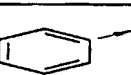
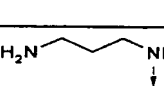
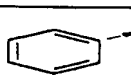
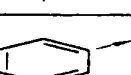
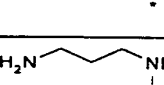
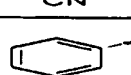
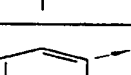
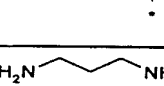
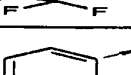
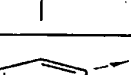
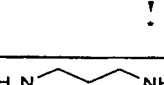
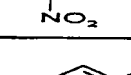
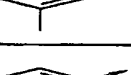
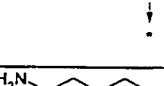
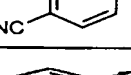
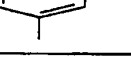
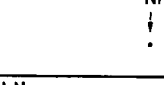
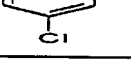
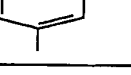
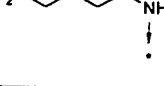
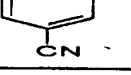
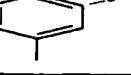
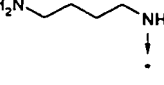
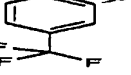
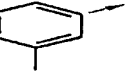
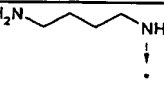
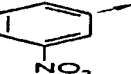
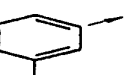
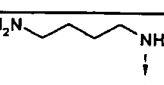
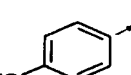
| <div style="text-align: center;">  <p>Chiral</p> </div> | | | | | |
|--|---|---|------------|-----------|--------------------|
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2749 |  |  | 89,5 | 4,4 | 540,2 |
| 2750 |  |  | 59,6 | 4,5 | 604,1 |
| 2751 |  |  | 51,3 | 4,2 | 551,2 |
| 2752 |  |  | 62,2 | 4,5 | 560,2 |
| 2753 |  |  | 59,6 | 4,7 | 594,2 |
| 2754 |  |  | 63 | 4,7 | 610,2 |
| 2755 |  |  | 52,5 | 4,9 | 662,2 |
| 2756 |  |  | 67,8 | 4,6 | 576,1 |
| 2757 |  |  | 81,1 | 4,6 | 516,3 |
| 2758 |  |  | 85,8 | 4,5 | 536,3 |
| 2759 |  |  | 85,4 | 4,7 | 550,3 |

| Chiral | | | | | |
|--|---|---|------------|-----------|--------------------|
|  | | | | | |
| Ex. | R2 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2760 |  |  | 76,6 | 4,7 | 614,1 |
| 2761 |  |  | 77,2 | 4,4 | 561,2 |
| 2762 |  |  | 85,4 | 4,7 | 570,2 |
| 2763 |  |  | 79,7 | 4,8 | 604,2 |
| 2764 |  |  | 81,1 | 4,9 | 620,2 |
| 2765 |  |  | 79,2 | 5,1 | 672,2 |
| 2766 |  |  | 82 | 4,8 | 586,3 |

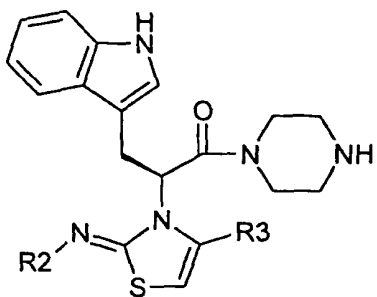
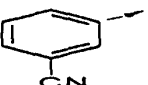
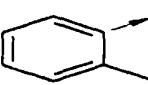
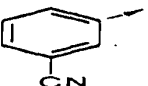
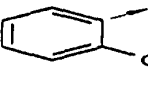
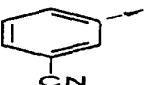

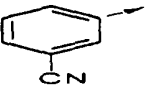

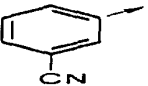
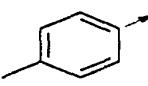
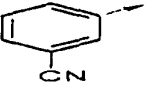
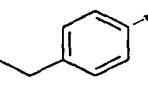
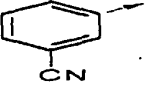
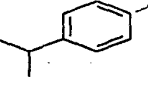
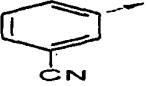
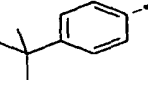
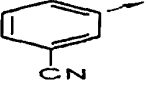
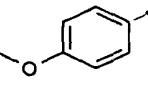
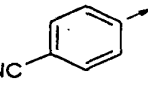
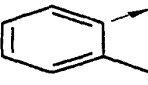
- 360 -

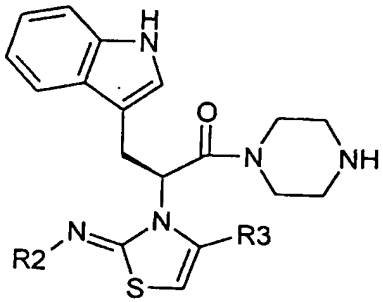
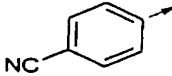
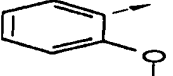
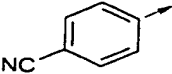
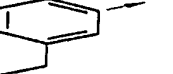
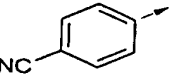
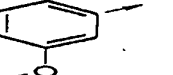
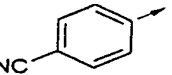
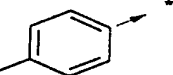
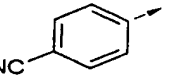
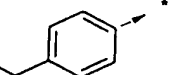
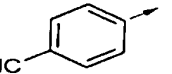
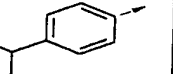
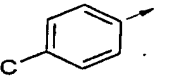
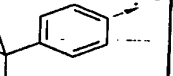
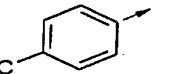
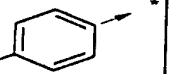
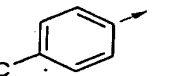
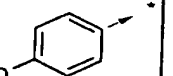
| Chiral | | | | | | |
|---|---|---|---|------------|-----------|--------------------|
|  | | | | | | |
| Ex. | R2 | R10 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2767 |  |  |  | 64,3 | 3,91 | 530,20 |
| 2768 |  |  |  | 58,3 | 3,57 | 521,22 |
| 2769 |  |  |  | 66,7 | 4,03 | 564,20 |
| 2770 |  |  |  | 65,1 | 3,71 | 541,19 |
| 2771 |  |  |  | 56,1 | 3,58 | 521,21 |
| 2772 |  |  |  | 42,1 | 3,93 | 544,19 |
| 2773 |  |  |  | 34,6 | 3,59 | 535,22 |
| 2774 |  |  |  | 46,9 | 4,05 | 578,21 |
| 2775 |  |  |  | 33,3 | 3,73 | 555,19 |
| 2776 |  |  |  | 33,4 | 3,6 | 535,22 |
| 2777 |  |  |  | 39,6 | 3,97 | 558,22 |
| 2778 |  |  |  | 47,5 | 3,63 | 549,23 |

| <div style="text-align: center;">  <p>Chiral</p> </div> | | | | | | |
|--|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R10 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2779 |  |  |  | 50,3 | 4,09 | 592,23 |
| 2780 |  |  |  | 40,6 | 3,76 | 569,19 |
| 2781 |  |  |  | 42,7 | 3,63 | 549,25 |
| 2782 |  |  |  | 35,5 | 4,0 | 572,17 |
| 2783 |  |  |  | 33,2 | 3,69 | 563,26 |
| 2784 |  |  |  | 45 | 4,1 | 606,27 |
| 2785 |  |  |  | 36,0 | 3,82 | 583,23 |
| 2786 |  |  |  | 27,1 | 3,7 | 563,26 |
| 2787 |  |  |  | 73,6 | 3,98 | 530,19 |
| 2788 |  |  |  | 62,5 | 3,64 | 521,21 |
| 2789 |  |  |  | 74,8 | 4,09 | 564,2 |
| 2790 |  |  |  | 67,7 | 3,77 | 541,20 |

| <div style="text-align: center;">  <p>Chiral</p> </div> | | | | | | |
|--|---|---|---|------------|-----------|--------------------|
| Ex. | R2 | R10 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2791 |  |  |  | 71,3 | 3,65 | 521,21 |
| 2792 |  |  |  | 52,4 | 4,0 | 544,18 |
| 2793 |  |  |  | 47,0 | 3,65 | 535,22 |
| 2794 |  |  |  | 54,7 | 4,11 | 578,22 |
| 2795 |  |  |  | 43,7 | 3,79 | 555,20 |
| 2796 |  |  |  | 44,6 | 3,67 | 535,22 |
| 2797 |  |  |  | 53,7 | 4,03 | 558,20 |
| 2798 |  |  |  | 51,0 | 3,69 | 549,23 |
| 2799 |  |  |  | 56,5 | 4,15 | 592,23 |
| 2800 |  |  |  | 48,9 | 3,83 | 569,20 |
| 2801 |  |  |  | 46,0 | 3,7 | 549,24 |
| 2802 |  |  |  | 41,2 | 4,1 | 572,21 |

| Chiral | | | | | | |
|--------|----|-----|----|------------|-----------|--------------------|
| | | | | | | |
| Ex. | R2 | R10 | R3 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2803 | | | | 36,7 | 3,76 | 563,26 |
| 2804 | | | | 47,4 | 4,2 | 606,26 |
| 2805 | | | | 37,0 | 3,89 | 583,22 |
| 2806 | | | | 37,3 | 3,76 | 563,26 |

| Chiral | | | | | |
|---|---|---|------------|-----------|--------------------|
|  | | | | | |
| Ex. | R3 | R2 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2807 |  |  | 52,1 | 3,65 | 547,22 |
| 2808 |  |  | 61,7 | 3,61 | 563,24 |
| 2809 |  |  | 54,1 | 3,91 | 561,26 |
| 2810 |  |  | 56,7 | 3,69 | 563,23 |
| 2811 |  |  | 54,7 | 3,65 | 547,23 |
| 2812 |  |  | 63,6 | 3,96 | 561,25 |
| 2813 |  |  | 66,1 | 4,13 | 575,26 |
| 2814 |  |  | 34,9 | 4,29 | 589,29 |
| 2815 |  |  | 69,3 | 3,66 | 563,24 |
| 2816 |  |  | 47,6 | 3,66 | 547,23 |

| Chiral | | | | | |
|---|---|---|------------|-----------|--------------------|
|  | | | | | |
| Ex. | R3 | R2 | Pureté (%) | tr (min.) | [M+H] ⁺ |
| 2817 |  |  | 41,4 | 3,61 | 563,23 |
| 2818 |  |  | 28,5 | 3,97 | 561,24 |
| 2819 |  |  | 56,4 | 3,71 | 563,23 |
| 2820 |  |  | 45,6 | 3,65 | 547,22 |
| 2821 |  |  | 62,6 | 3,99 | 561,24 |
| 2822 |  |  | 42,0 | 4,17 | 575,26 |
| 2823 |  |  | 45,7 | 4,32 | 589,28 |
| 2824 |  |  | 23,5 | 3,65 | 551,21 |
| 2825 |  |  | 70,9 | 3,67 | 563,22 |

PROPRIETES PHARMACOLOGIQUES DES PRODUITS DE L'INVENTION

Les composés de la présente invention peuvent et ont été testés en ce qui concerne leur affinité pour différents sous-types de récepteurs de la somatostatine selon les procédures décrites ci-après.

Etude de l'affinité pour les sous-types de récepteurs de la somatostatine humaine :

L'affinité d'un composé de l'invention pour les sous-types de récepteurs de la somatostatine 1 à 5 (sst₁, sst₂, sst₃, sst₄ et sst₅, respectivement) est déterminée par la mesure de l'inhibition de la liaison de [¹²⁵I-Tyr¹¹]SRIF-14 à des cellules transfectées CHO-K1.

Le gène du récepteur sst₁ de la somatostatine humaine a été cloné sous forme d'un fragment génomique. Un segment *Pst*I-*Xmn*I de 1,5 Kb contenant 100 pb de la région 5' non transcrite, 1,17 Kb de la région codante en totalité, et 230 bp de la région 3' non transcrite est modifié par l'addition du linker BglII. Le fragment d'ADN résultant est souscloné dans le site *Bam*HI d'un pCMV-81 pour donner le plasmide d'expression chez les mammifères (fourni par Dr. Graeme Bell, Univ. Chicago). Une lignée de cellules clonées exprimant de façon stable le récepteur sst₁ est obtenue par transfection dans des cellules CHO-K1 (ATCC) grâce à la méthode de co-précipitation calcium phosphate. Le plasmide pRSV-neo (ATCC) est inclus comme marqueur de sélection. Des lignées de cellules clonées ont été sélectionnées dans un milieu RPMI 1640 contenant 0,5 mg/ml de G418 (Gibco), clonées en cercle, et multipliées en culture.

Le gène du récepteur sst₂ de la somatostatine humaine, isolé sous forme d'un fragment génomique d'ADN de 1.7 Kb *Bam*HI-*Hind*III et souscloné dans un vecteur plasmidique pGEM3Z (Promega), a été fourni par le Dr. G. Bell (Univ. of Chicago). Le vecteur d'expression des cellules de mammifères est construit en insérant le fragment *Bam*HI-*Hind*III de 1,7 Kb dans des sites de restriction endonucléase compatibles du plasmide pCMV5. Une lignée de cellules clonées est obtenue par transfection dans des cellules CHO-K1 grâce à la méthode de co-précipitation calcium phosphate. Le plasmide pRSV-neo est inclus comme marqueur de sélection.

Le récepteur *sst*₃ est isolé comme fragment génomique, et la séquence codante complète est contenue dans un fragment *Bam*HI/*Hind*III de 2,4 Kb. Le plasmide d'expression chez les mammifères, pCMV-h3, est construit par insertion du fragment *Nco*I-*Hind*III de 2,0 Kb dans le site EcoR1 du vecteur pCMV après modification des terminaisons et addition de linkers EcoR1. Une lignée de cellules clonées exprimant de façon stable le récepteur *sst*₃ est obtenue par transfection dans des cellules CHO-K1 (ATCC) par la méthode de co-précipitation au phosphate de calcium. Le plasmide pRSV-neo (ATCC) est inclus comme marqueur de sélection. Des lignées de cellules clonées ont été sélectionnées dans un milieu RPMI 1640 contenant 0,5 mg/ml de G418 (Gibco), clonées en cercle, et multipliées en culture.

Le plasmide d'expression du récepteur *sst*₄ humain, pCMV-HX, a été fourni par le Dr. Graeme Bell (Univ. Chicago). Ce vecteur contient le fragment génomique codant pour le récepteur *sst*₄ humain de 1,4 Kb *Nhe*I-*Nhe*I, 456 pb de la région 5' non transcrite, et 200 pb de la région 3' non transcrite, cloné dans les sites *Xba*I/*Eco*R1 de pCMV-HX. Une lignée de cellules clonées exprimant de façon stable le récepteur *sst*₄ est obtenue par transfection dans des cellules CHO-K1 (ATCC) par la méthode de co-précipitation au phosphate de calcium. Le plasmide pRSV-neo (ATCC) est inclus comme marqueur de sélection. Des lignées de cellules clonées ont été sélectionnées dans un milieu RPMI 1640 contenant 0,5 mg/ml de G418 (Gibco), clonées en cercle, et multipliées en culture.

Le gène correspondant au récepteur *sst*₅ humain, obtenu par la méthode PCR en utilisant un clone génomique λ comme sonde, a été fourni par le Dr. Graeme Bell (Univ. Chicago). Le fragment PCR résultant de 1,2 Kb contient 21 paires de bases de la région 5' non transcrites, la région codante en totalité, et 55 pb de la région 3' non transcrite. Le clone est inséré dans un site EcoR1 du plasmide pBSSK(+). L'insert est récupéré sous la forme d'un fragment *Hind*III-*Xba*I de 1,2 Kb pour sousclonage dans un vecteur d'expression chez les mammifères, pCVM5. Une lignée de cellules clonées exprimant de façon stable le récepteur *sst*₅ est obtenue par transfection dans des cellules CHO-K1 (ATCC) par la méthode de co-précipitation au phosphate de calcium. Le plasmide pRSV-neo (ATCC) est inclus comme marqueur de sélection. Des lignées de cellules clonées ont été sélectionnées dans un milieu RPMI 1640 contenant 0,5 mg/ml de G418 (Gibco), clonées en cercle, et multipliées en culture.

Les cellules CHO-K1 exprimant de façon stable l'un des récepteurs *sst* humain sont cultivées dans un milieu RPMI 1640 contenant 10% de sérum foetal de veau et 0,4 mg/ml de généticine. Les cellules sont collectées avec de l'EDTA 0,5 mM et centrifugées à 500 g pendant environ 5 min à environ 4 °C. Le centrifugat est re-

suspendu dans un milieu tampon 50 mM Tris à pH 7,4 et centrifugé deux fois à 500 g pendant environ 5 min à environ 4 °C. Les cellules sont lysées par sonication et centrifugées à 39000 g pendant environ 10 min à 4 °C. Le centrifugat est re-suspendu dans le même milieu tampon et centrifugé at 50000 g pendant 10 min à environ 4 °C et
5 les membranes dans le centrifugat obtenu sont stockées à - 80 °C.

Des tests d'inhibition compétitive de liaison avec [125 I-Tyr 11]SRIF-14 sont effectués en double à l'aide de plaques en polypropylène de 96 puits. Les membranes cellulaires (10 µg protéine/puits) sont incubées avec [125 I-Tyr 11]SRIF-14 (0,05 nM) pendant environ 60 min à environ 37 °C dans un milieu tampon 50 mM HEPES (pH 7,4)
10 comprenant 0,2% BSA, 5 mM de MgCl $_2$, 200 KIU/ml de Trasylol, 0,02 mg/ml de bacitracine et 0,02 mg/ml de fluorure de phénylméthylsulphonyle.

La [125 I-Tyr 11]SRIF-14 liée est séparée de la [125 I-Tyr 11]SRIF-14 libre par filtration immédiate à travers des plaques filtres en fibre de verre GF/C (Unifilter, Packard) préimprégné avec 0,1 % de polyéthylènimine (P.E.I.), en utilisant un Filtermate 196
15 (Packard). Les filtres sont lavés avec du tampon 50 mM HEPES à environ 0-4 °C pendant environ 4 secondes et leur radioactivité est déterminée à l'aide d'un compteur (Packard Top Count).

La liaison spécifique est obtenue en soustrayant la liaison non spécifique (déterminée en présence de 0,1 µM SRIF-14) de la liaison totale. Les données relatives à la liaison sont
20 analysées par analyse en régression non-linéaire assistée par ordinateur (MDL) et les valeurs des constantes d'inhibition (K_i) values sont déterminées.

La détermination du caractère agoniste ou antagoniste d'un composé de la présente invention est effectuée à l'aide du test décrit ci-après.

Test fonctionnel : Inhibition de la production d'AMPc intracellulaire :

Des cellules CHO-K1 exprimant les sous-types de récepteurs de la somatostatine humaine (SRIF-14) sont cultivées dans des plaques à 24 puits dans un milieu RPMI 1640 avec 10% de sérum foetal de veau et 0,4 mg/ml de généticine. Le milieu est
5 changé le jour précédant l'expérience.

Les cellules à raison de 10^5 cellules/puits sont lavées 2 fois avec 0,5 ml de nouveau milieu RPMI comprenant 0,2 % BSA complété par 0,5 mM de 3-isobutyl-1-méthylxanthine (IBMX) et incubées pendant environ 5 min à environ 37 °C.

La production d'AMP cyclique est stimulée par l'addition de 1 mM de
10 forskoline (FSK) pendant 15-30 minutes à environ 37 °C.

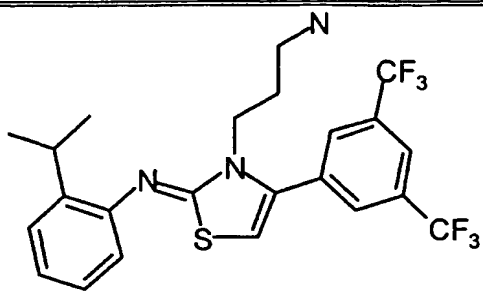
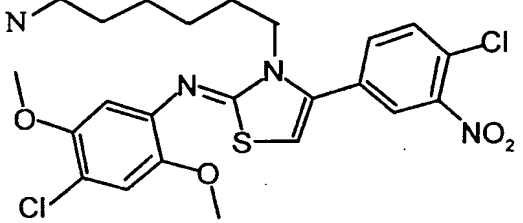
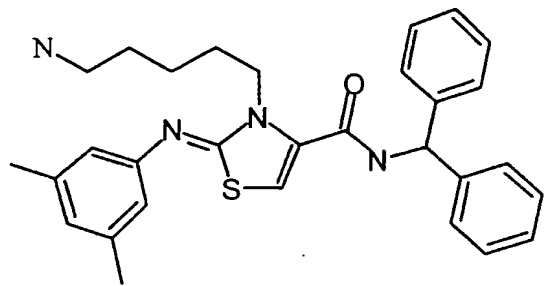
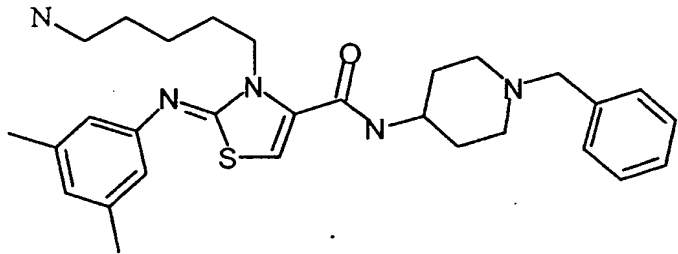
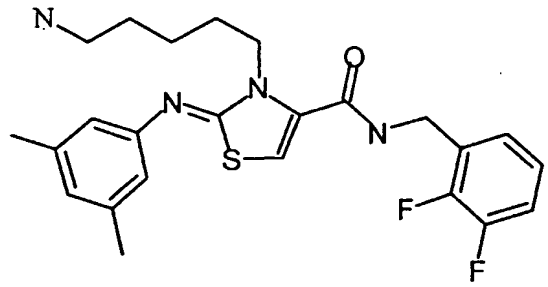
L'effet inhibiteur de la somatostatine d'un composé agoniste est mesuré par l'addition simultanée de FSK (1 μ M) , SRIF-14 (10^{-12} M to 10^{-6} M) et du composé à tester (10^{-10} M à 10^{-5} M).

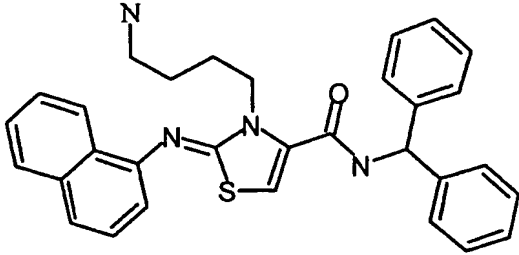
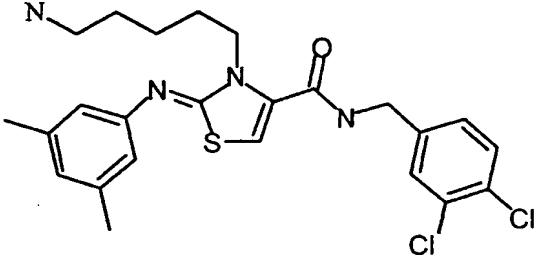
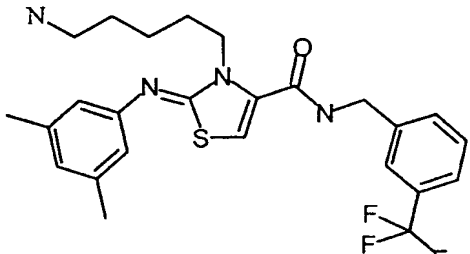
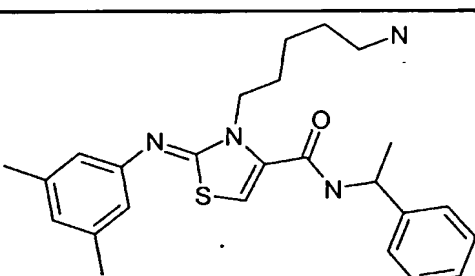
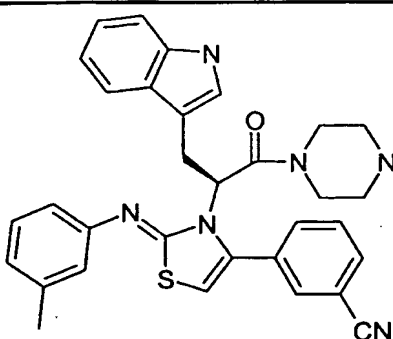
L'effet antagoniste d'un composé est mesuré par l'addition simultanée
15 de FSK (1 μ M), SRIF-14 (1 to 10 nM) et du composé à tester (10^{-10} M to 10^{-5} M).

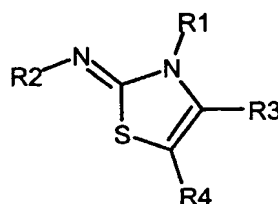
Le milieu réactionnel est éliminé et 200 ml de HCl 0,1 N sont ajoutés. La quantité d'AMPc est mesurée par un test radioimmunologique (Kit FlashPlate SMP001A, New England Nuclear).

Résultats :

20 Les tests effectués selon les protocoles décrits ci-dessus ont permis de montrer que les produits de formule générale (I) définie dans la présente demande ont une bonne affinité pour au moins l'un des sous-types de récepteurs de la somatostatine, la constante d'inhibition K_i étant inférieure au micromolaire pour certains des composés exemplifiés, et en particulier pour les produits repris dans le tableau ci-après.

| Formule du composé | K _i (nM) |
|--|---------------------|
|  | < 200 |
|  | < 200 |
|  | < 200 |
|  | < 200 |
|  | < 200 |

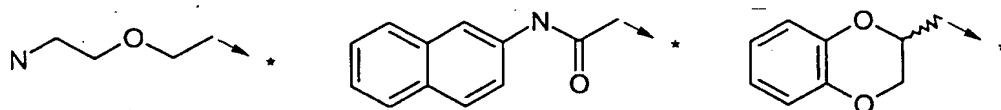
| Formule du composé | K _i (nM) |
|--|---------------------|
|  | < 200 |
|  | < 200 |
|  | < 200 |
|  | < 200 |
|  | < 200 |

Revendications**1. Composé de formule générale (I)****(I)**

sous forme racémique, d'énantiomère ou toutes combinaisons de ces formes, dans laquelle :

- 5 R1 représente un radical amino(C₂-C₇)alkyle, aminoalkylarylalkyle, aminoalkylcycloalkylalkyle, (C₁-C₁₅)alkyle, (C₃-C₇)cycloalkyle, (C₁-C₆)alkyl(C₃-C₆)cycloalkyle, (C₃-C₆)cycloalkylalkyle, cyclohexénylalkyle, alkényle, alkynyle, aryle carbocyclique comptant au moins deux cycles dont l'un au moins n'est pas aromatique, aralkyle carbocyclique ou hétérocyclique éventuellement
- 10 substitué sur le groupe aryle, bis-arylalkyle, alkoxyalkyle, furannylalkyle, tétrahydrofurannylalkyle, dialkylaminoalkyle, N-acétamidoalkyle, cyanoalkyle, alkylthioalkyle, arylhydroxyalkyle, aralkoxyalkyle, morpholinoalkyle, pyrrolidinoalkyle, pipéridinoalkyle, N-alkylpyrrolidinoalkyle, N-alkylpipérazinylalkyle ou oxopyrrolidinoalkyle,

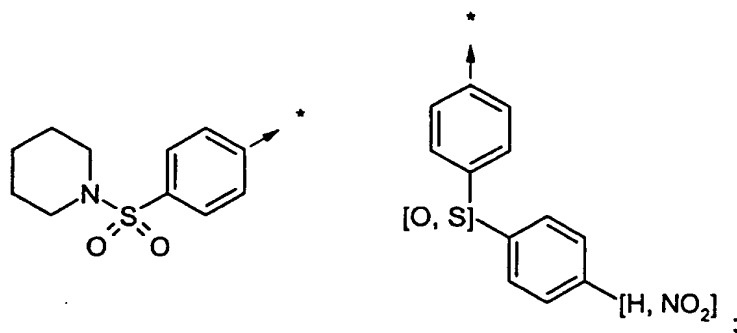
- 15 ou R1 représente l'un des radicaux représentés ci-dessous :



ou encore R1 représente un radical -C(R11)(R12)-CO-R10 ;

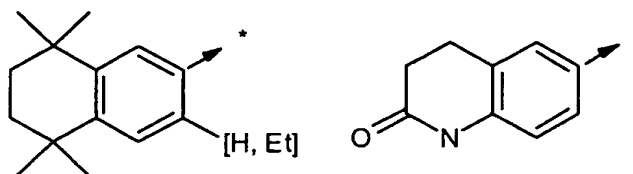
R2 représente un radical aryle carbocyclique ou hétérocyclique éventuellement substitué,

- 20 ou bien R2 représente l'un des radicaux représentés ci-dessous :



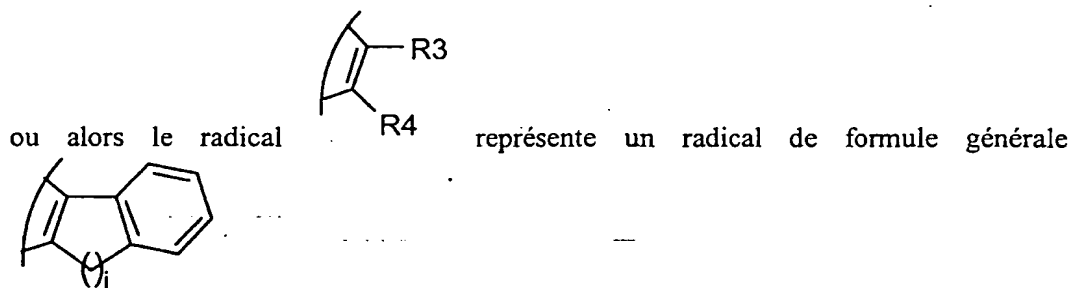
R3 représente un radical alkyle, adamantyle, aryle carbocyclique ou hétérocyclique éventuellement substitué, aralkyle carbocyclique ou hétérocyclique éventuellement substitué sur le groupe aryle,

ou R3 représente l'un des radicaux représentés ci-dessous :



5 ou encore R3 représente un radical -CO-R5 ;

R4 représente H, alkyle, aralkyle carbocyclique ou hétérocyclique éventuellement situé sur le radical aryle ;



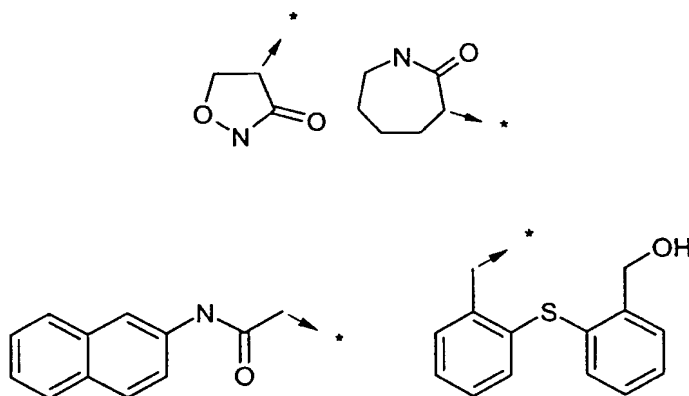
10 dans laquelle i représente un entier de 1 à 3 ;

R5 représente le radical N(R6)(R7) ;

R6 représente un radical (C₁-C₁₆)alkyle, cycloalkylalkyle, hydroxyalkyle, aryloxyalkyle, aralkyle carbocyclique ou hétérocyclique éventuellement substitué sur le groupe aryle, aralkoxyalkylke, arylhydroxyalkyle, alkoxyalkyle, alkylthioalkyle,

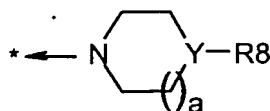
alkényle, alkynyle, cyclohexényle, cyclohexénylalkyle, alkylthiohydroxyalkyle, cyanoalkyle,
 N-acétamidoalkyle, bis-arylalkyle éventuellement substitué sur les groupes aryle, di-arylalkyle éventuellement substitué sur les groupes aryle, morpholinoalkyle,
 5 pyrrolidinoalkyle, pipéridinoalkyle, N-alkylpyrrolidinoalkyle, oxopyrrolidinoalkyle, tétrahydrofuranylalkyle, N-benzylpyrrolidinoalkyle, N-alkylpipérazinylalkyle, N-benzylpipérazinylalkyle, N-benzylpipéridinylalkyle ou N-alkoxycarbonylpipéridinyle, ou R6 représente un radical (C₃-C₈)cycloalkyle éventuellement substitué par un radical choisi parmi le groupe composé du radical
 10 hydroxy et d'un radical alkyle,

ou bien R6 représente l'un des radicaux représentés ci-dessous :



R7 représente H ou un radical alkyle, hydroxyalkyle, mono- ou di-aminoalkyle ou aralkyle ;

ou encore le radical -N(R6)(R7) représente le radical de formule générale suivante :



15 dans laquelle :

R8 représente H, alkyle, hydroxyalkyle, aryle carbocyclique ou hétérocyclique éventuellement substitué, aralkyle éventuellement substitué sur le groupe aryle, alkényle, alkoxyalkyle, cycloalkyle, cycloalkylalkyle, bis-arylalkyle, pipéridinyle, pyrrolidinyle, hydroxy, arylalkényle,

20 ou R8 représente -X-(CH₂)_b-R9 ;

R9 représente H ou un radical alkyle, alkoxy, aryloxy, aryle carbocyclique ou hétérocyclique éventuellement substitué, morpholinyle, pyrrolidinyle, alkylamino ou N,N'-(alkyl)(aryl)amino ;

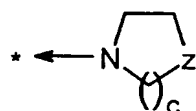
X représente CO, CO-NH ou SO₂ ;

5 Y représente CH ou N ;

a représente 1 ou 2 ;

b représente un entier de 0 à 6 ;

ou le radical N(R6)(R7) représente un radical de formule générale

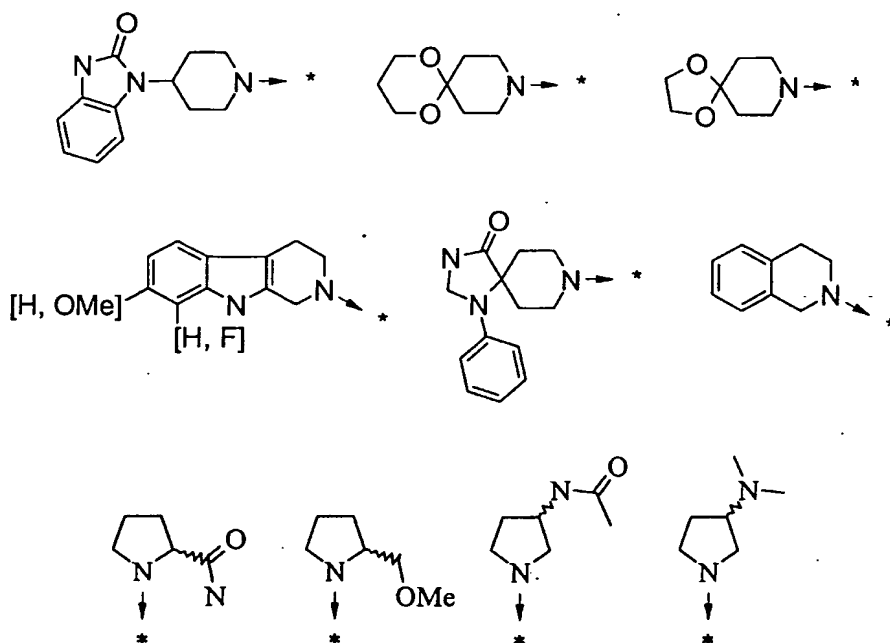


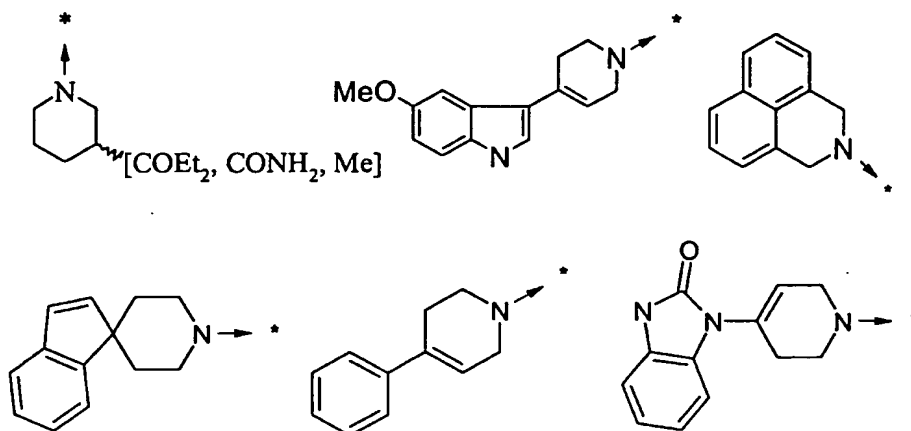
dans laquelle :

10 Z représente CH, O ou S ;

c représente un entier de 0 à 4 ;

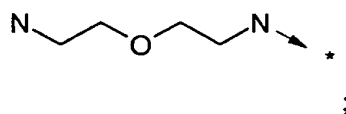
ou encore le radical N(R6)(R7) représente l'un des radicaux représentés ci-dessous :





R10 représente un radical amino(C₂-C₇)alkylamino, ((aminoalkyl)aryl)alkylamino, ((aminoalkyl)cycloalkyl)alkylamino, pipérazinyle, homopipérazinyle,

ou R10 représente le radical représenté ci-dessous :



R11 représente H ;

- 5 R12 représente H ou un radical alkyle, (C₃-C₇)cycloalkyle, aralkyle carbocyclique ou hétérocyclique éventuellement substitué, propargyle, allyle, hydroxyalkyle, alkylthioalkyle, arylalkylalkoxyalkyle, arylalkylthioalkoxyalkyle ;

ou un sel d'un composé de formule générale (I).

2. Composé de formule générale (I) selon la revendication 1, caractérisé en ce que :

- 10 i) pour R1, lorsque le groupe aryle est substitué, il peut l'être de 1 à 5 fois (outre la liaison qui le relie au reste de la molécule) par des radicaux choisis indépendamment parmi le groupe composé d'un atome halogène et d'un radical alkyle, alkoxy, alkylthio, haloalkyle, haloalkoxy, aryle, aralkoxy ou SO₂NH₂, deux substituants pouvant, le cas échéant, être reliés entre eux et former un cycle, par exemple en représentant ensemble
15 un radical méthylènedioxy ou propylène ;

ii) pour R2, lorsque le groupe aryle est substitué, il peut l'être de 1 à 5 fois (outre la liaison qui le relie au reste de la molécule) par des radicaux choisis indépendamment parmi le groupe composé d'un atome halogène et d'un radical alkyle, alkoxy, alkylthio, haloalkyle, alkényle, haloalkoxy, nitro, cyano, azido, SO₂N, mono- ou di-alkylamino,

aminoalkyle, aralkoxy ou aryle, deux substituants pouvant, le cas échéant, être reliés entre eux et former un cycle, par exemple en représentant ensemble un radical méthylènedioxy, éthylènedioxy ou propylène ;

iii) pour R3, lorsque le(s) groupe(s) aryle(s) (provenant d'un radical aryle ou aralkyle) est (sont) substitué(s), il(s) peu(ven)t l'être, selon le cas, de 1 à 5 fois (outre la liaison qui le(s) relie au reste de la molécule), les radicaux aryle ou aralkyle carbocycliques peuvent être substitués de 1 à 5 fois sur le noyau aryle par des radicaux choisis indépendamment parmi le groupe composé d'un atome halogène et d'un radical alkyle, hydroxy, alkoxy, haloalkyle, haloalkoxy, nitro, cyano, azido, mono- ou di-alkylamino, pyrrolidinyle, morpholinyle, aralkoxy ou aryle, deux substituants pouvant, la cas échéant, être reliés entre eux et former un cycle, par exemple en représentant ensemble un radical alkylènedioxy comptant de 1 à 3 atomes de carbone, tandis que les radicaux aryle ou aralkyle hétérocycliques de R3 peuvent être substitués de 1 à 2 fois sur le noyau par des radicaux choisis indépendamment parmi le groupe composé d'un atome halogène et d'un radical alkyle ;

iv) pour R4, lorsque le groupe aryle est substitué, il peut l'être de 1 à 5 fois (outre la liaison qui le relie au reste de la molécule) par des radicaux choisis indépendamment parmi le groupe composé d'un atome halogène et d'un radical alkyle ou alkoxy ;

v) pour R6, lorsque le(s) groupe(s) aryle(s) est (sont) substitué(s), il(s) peu(ven)t l'être de 1 à 5 fois (outre la liaison qui le(s) relie au reste de la molécule), les substituants éventuels sur les groupes aryle étant choisis indépendamment parmi le groupe composé d'un atome halogène et d'un radical alkyle, alkoxy, alkylthio, haloalkyle, haloalkoxy, aryle, aryloxy ou SO_2NH_2 ;

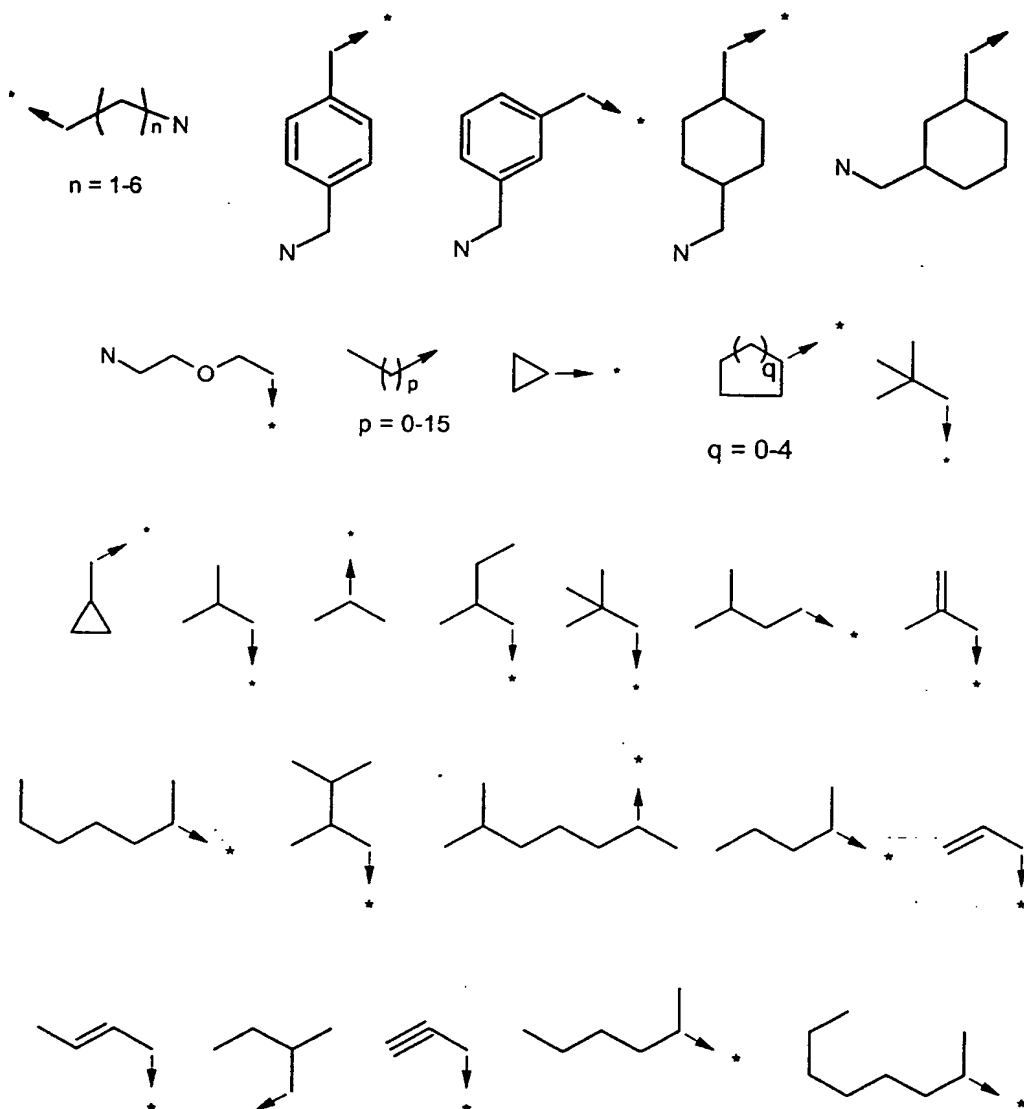
vi) pour R8, lorsque le(s) groupe(s) aryle(s) est (sont) substitué(s), il(s) peu(ven)t l'être de 1 à 5 fois (outre la liaison qui le(s) relie au reste de la molécule), les substituants éventuels sur les groupes aryle étant choisis indépendamment parmi le groupe composé d'un atome halogène et d'un radical alkyle, haloalkyle, alkoxy, hydroxy, cyano, nitro ou alkylthio ;

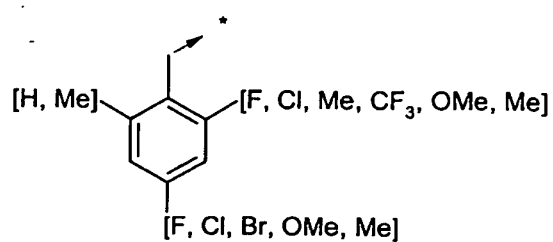
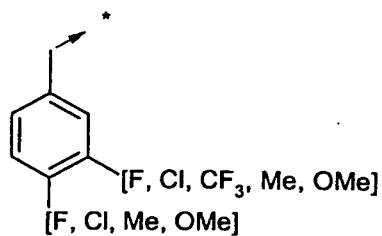
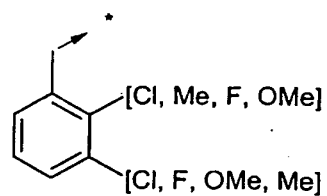
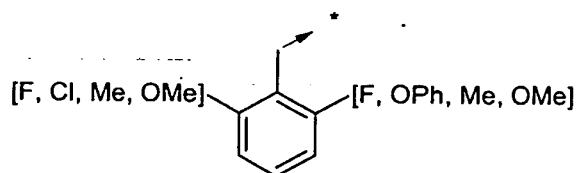
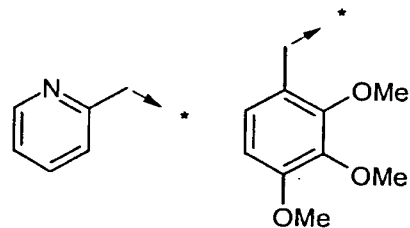
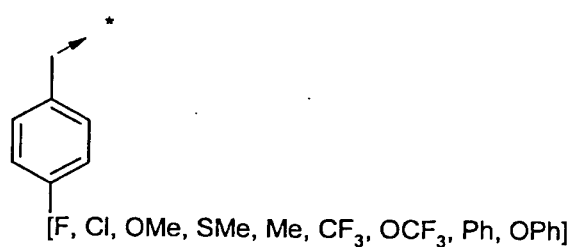
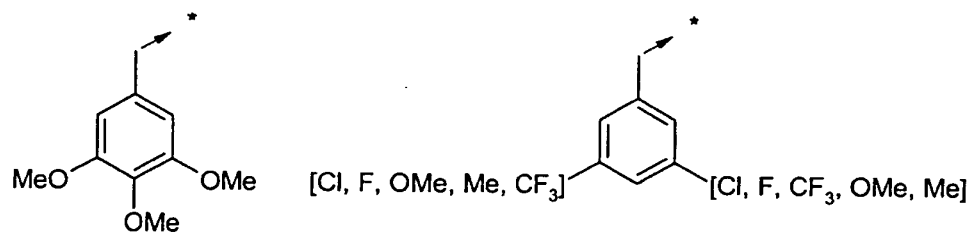
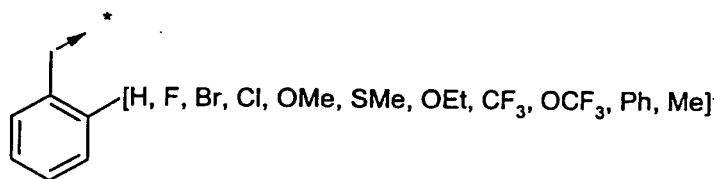
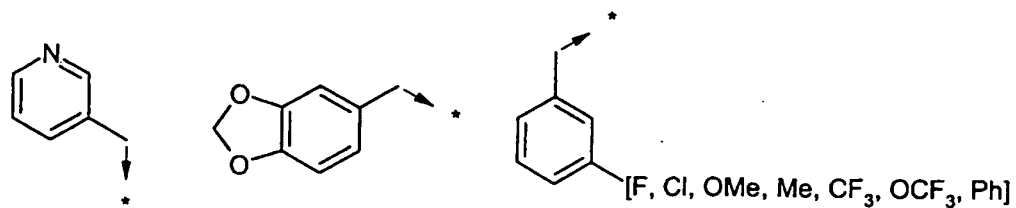
vii) pour R9, lorsque le radical aryle carbocyclique est substitué, il peut l'être de 1 à 5 fois (outre la liaison qui le relie au reste de la molécule), les substituants éventuels sur le groupe aryle étant choisis indépendamment parmi le groupe composé d'un atome halogène et d'un radical alkyle, haloalkyle, alkoxy, haloalkoxy, alkylthio, aryle carbocyclique, hydroxy, cyano ou nitro ;

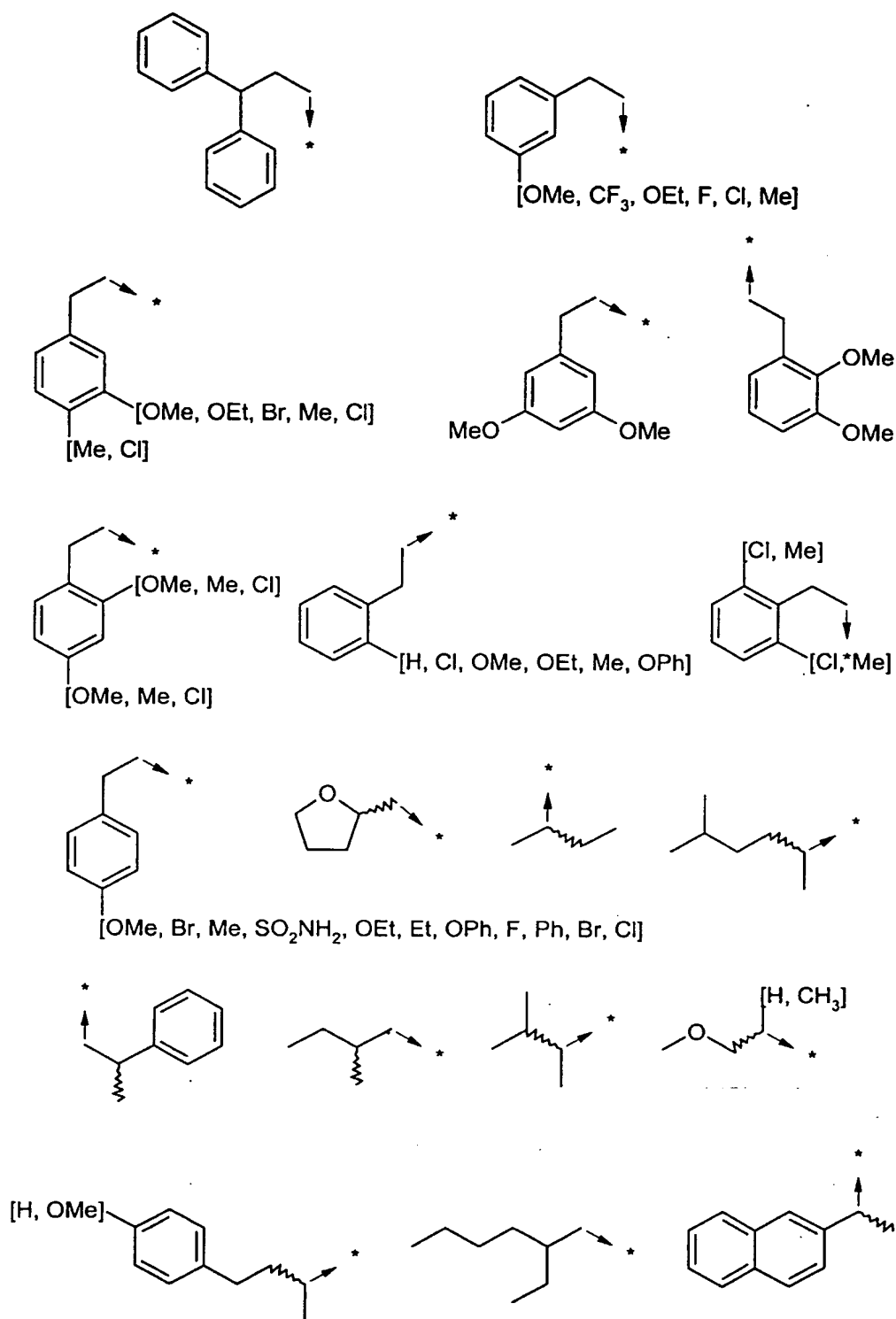
- viii) pour R12, lorsque le radical aryle carbocyclique ou hétérocyclique est substitué, il peut l'être de 1 à 5 fois (outre la liaison qui le relie au reste de la molécule), les substituants éventuels sur le groupe aryle étant choisis indépendamment parmi le groupe composé d'un atome halogène et d'un radical alkyle, alkoxy, aryle carbocyclique, aralkoxy, hydroxy, cyano ou nitro.

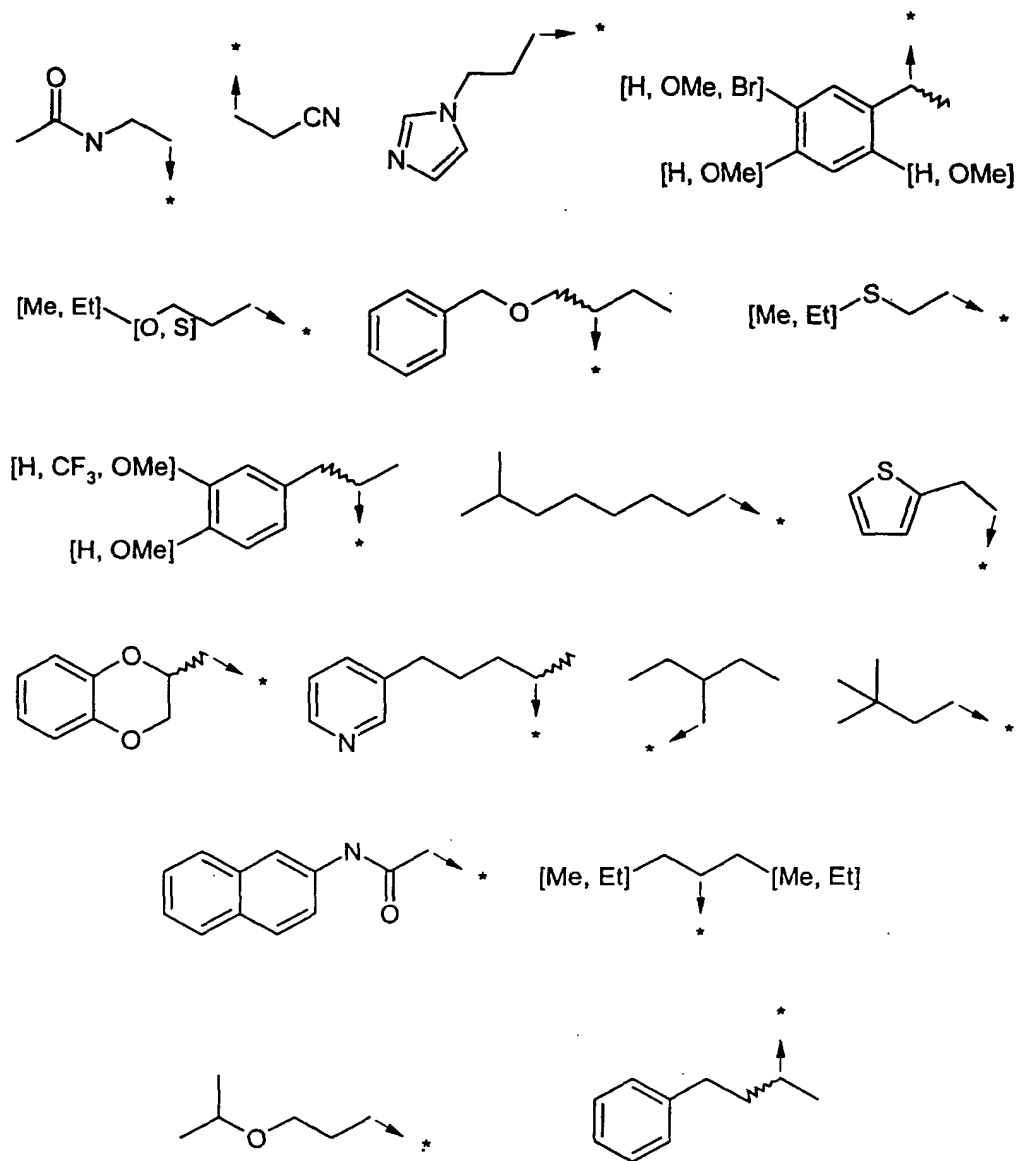
3. Composé selon la revendication 1 ou 2, caractérisé en ce que :

R1 représente $-C(R11)(R12)-CO-R10$ ou l'un des radicaux suivants :



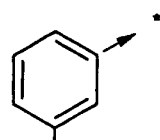






R2 représente l'un des radicaux suivants :

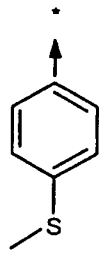
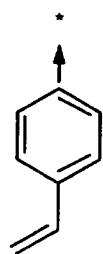




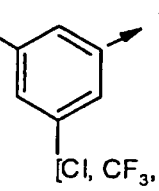
[Cl, Br, F, I, OMe, SMe, CF₃, OCF₃, NO₂, CN, Me, Et, iPr, OCH₂Ph]



[Cl, Br, F, I, OMe, OEt, CF₃, OCF₃, NO₂, CN, Me, Et, iPr, nBu, tBu, NMe₂, NEt₂]

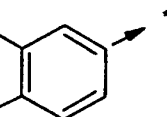


[Cl, CF₃, Me, OMe]

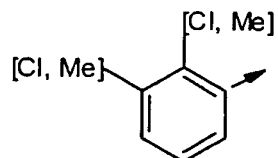


[Cl, CF₃, Me, OMe]

[Cl, OMe, Me, CF₃, NO₂]

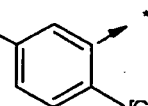


[Cl, Br, F, OMe, Me]

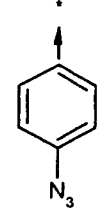


[Cl, Me]

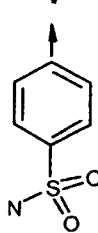
[Cl, Br, F, CF₃, OMe, Me, NO₂]



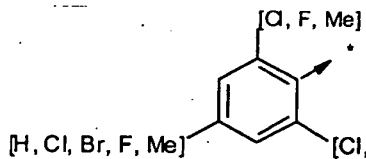
[Cl, Br, F, OMe, Me]



N₃



N-S(=O)₂

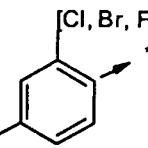


[Cl, F, Me]

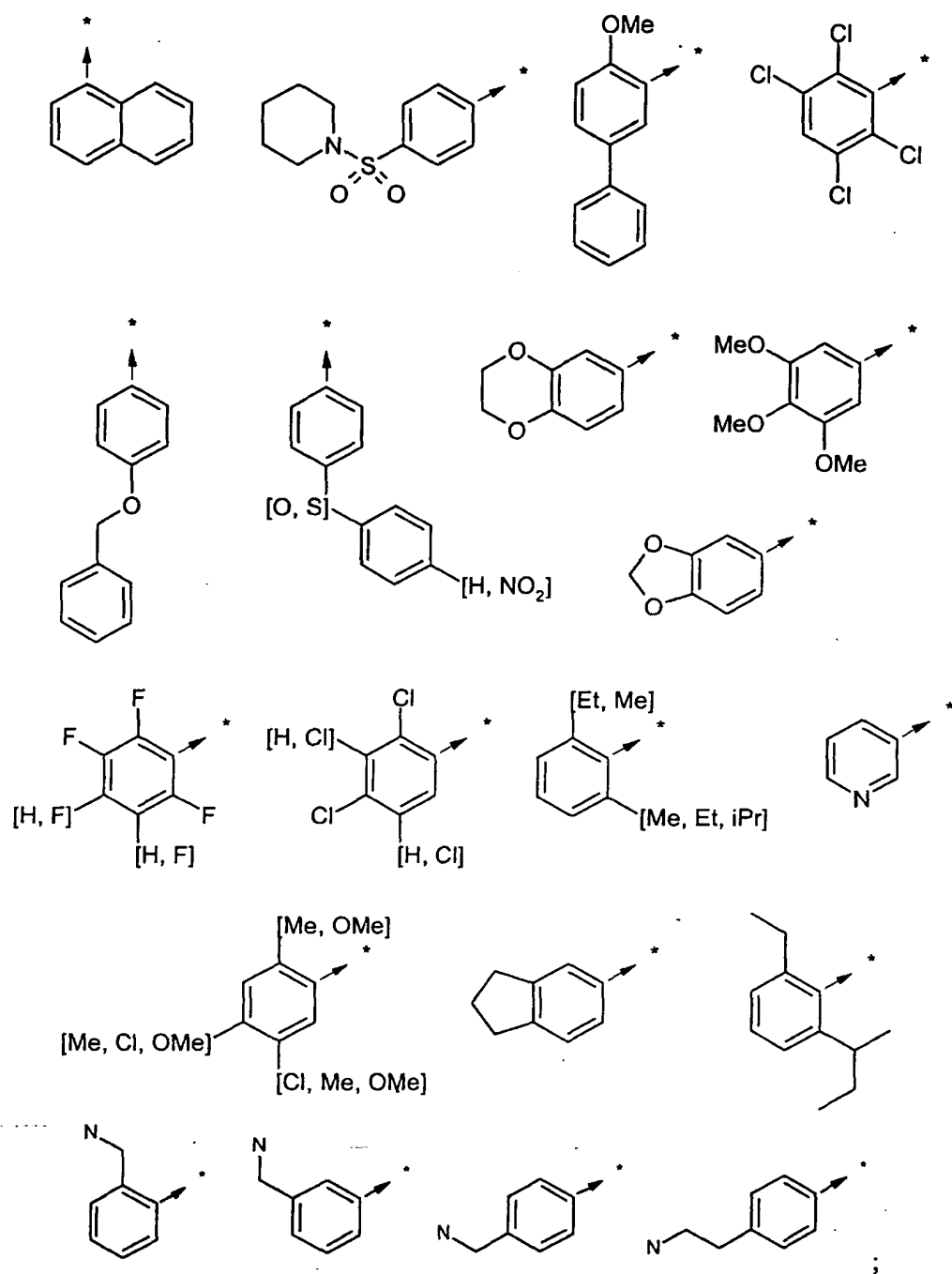
[H, Cl, Br, F, Me]

[Cl, F, Me]

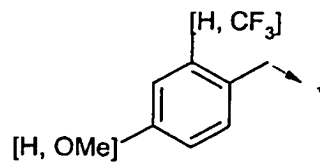
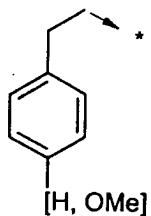
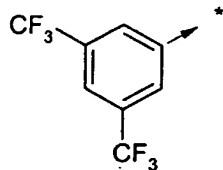
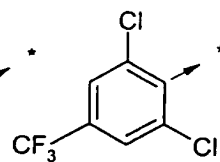
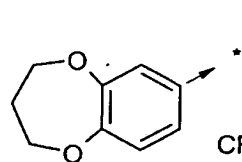
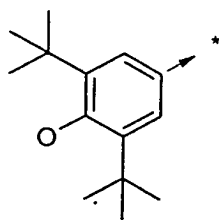
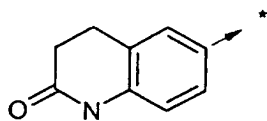
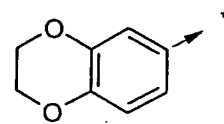
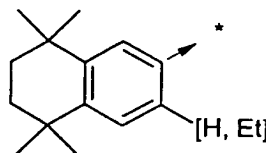
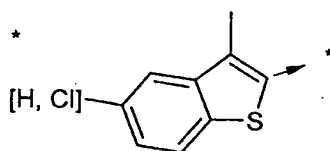
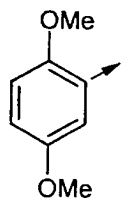
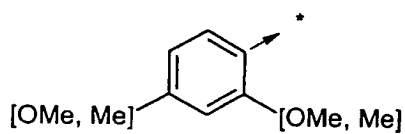
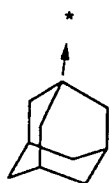
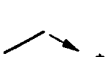
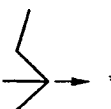
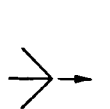
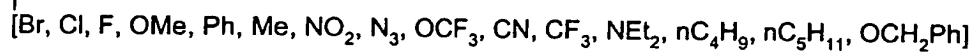
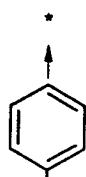
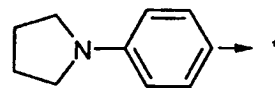
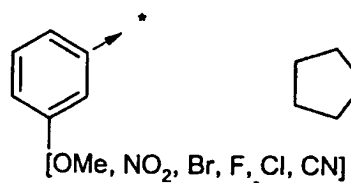
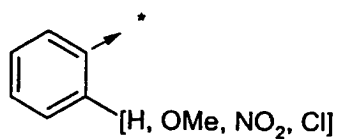
[Cl, Br, F, Me, OMe, CF₃, OCF₃, NO₂]

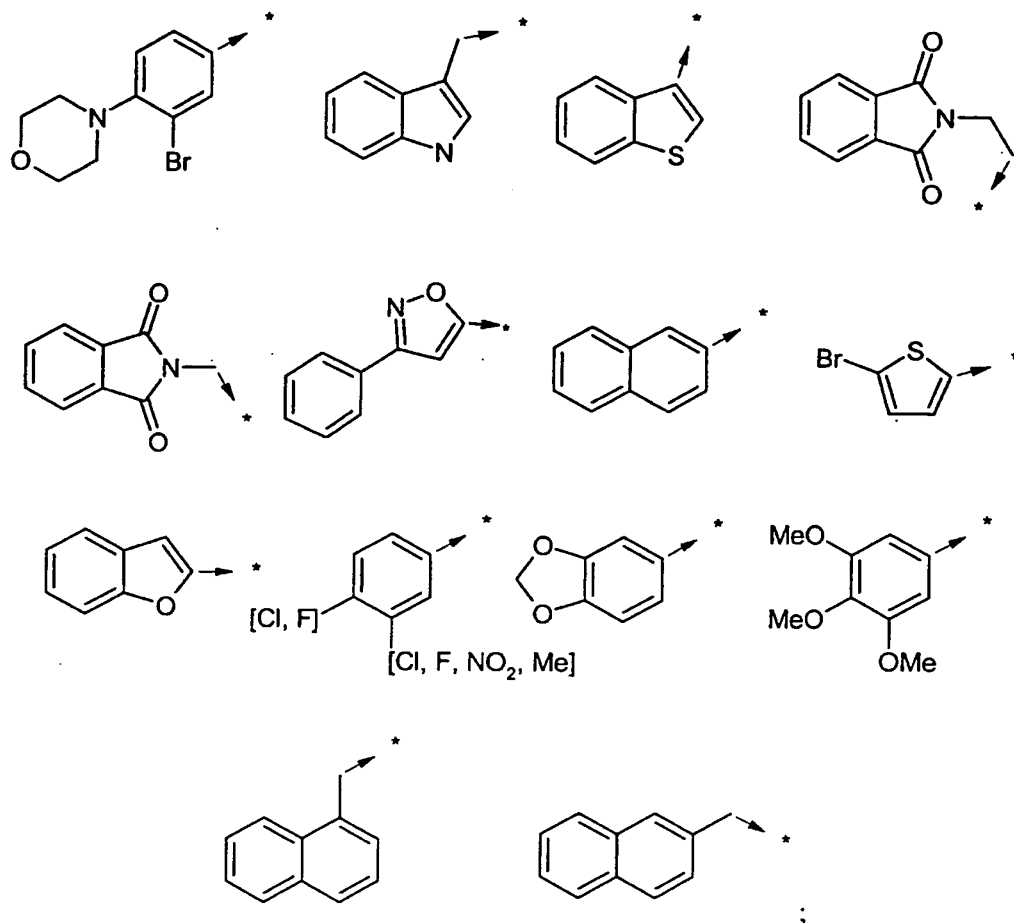


[Cl, Br, F, Me, OMe, NO₂, iPr, CF₃]

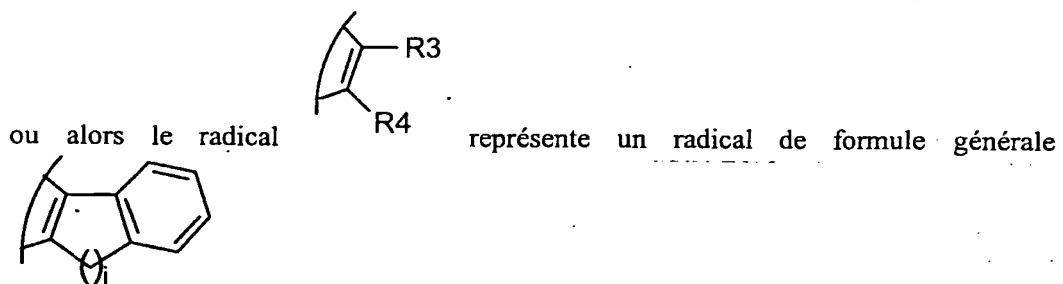


R3 représente CO-R5 ou l'un des radicaux suivants :



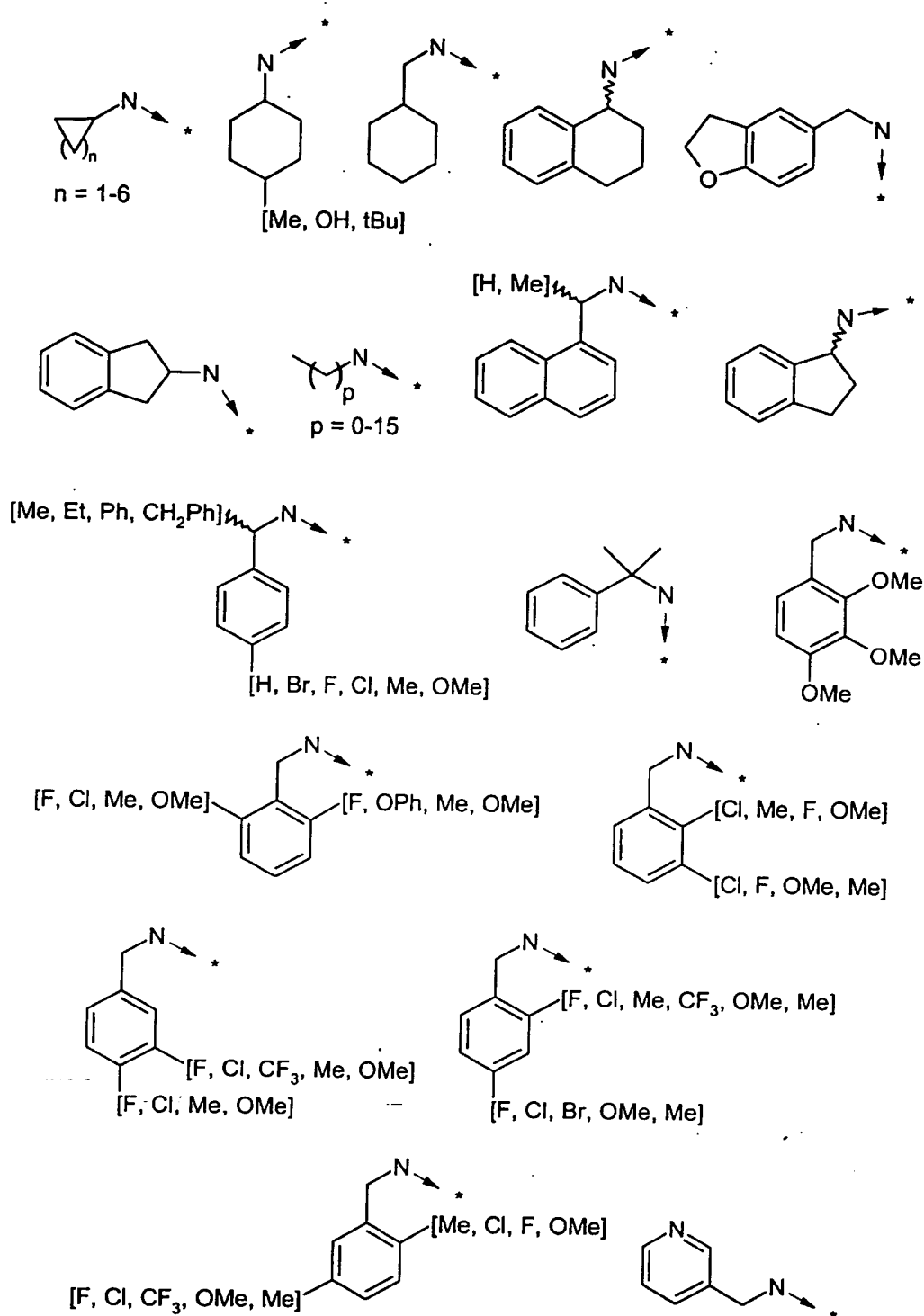


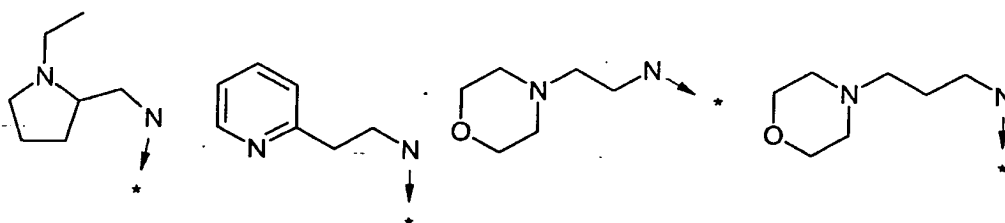
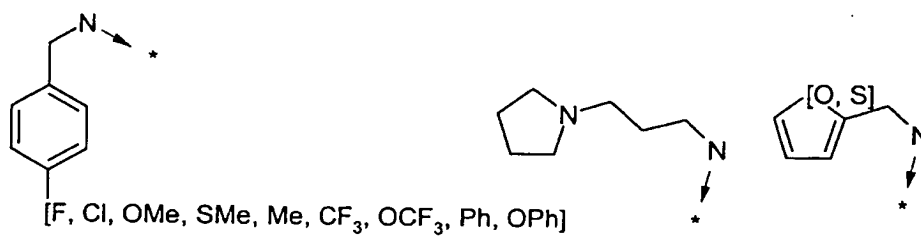
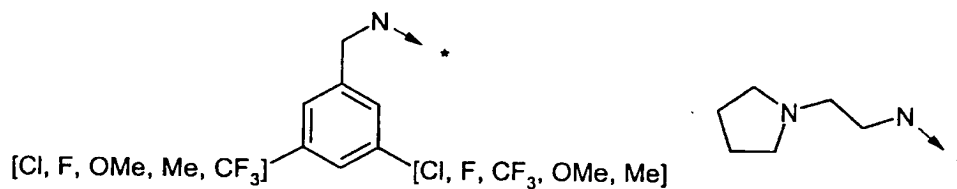
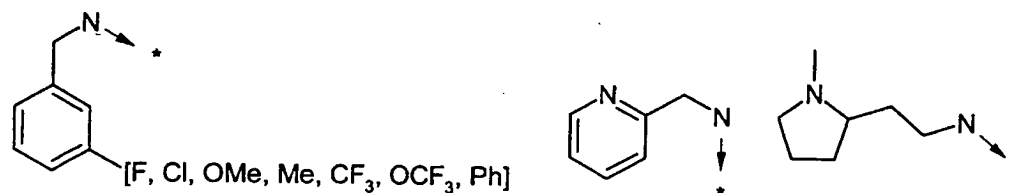
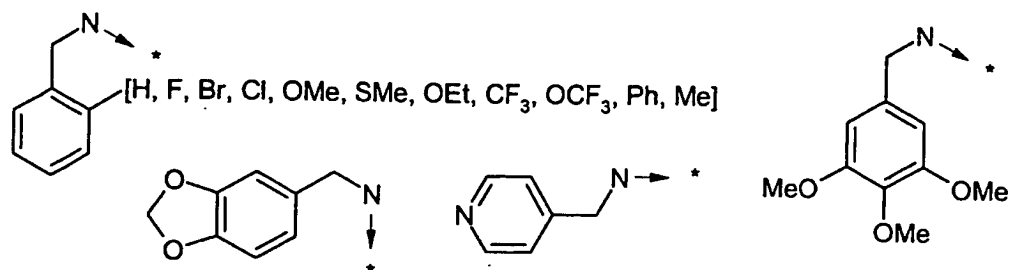
R4 représente H, alkyle, aralkyle carbocyclique ou hétérocyclique éventuellement substitué sur le radical aryle ;

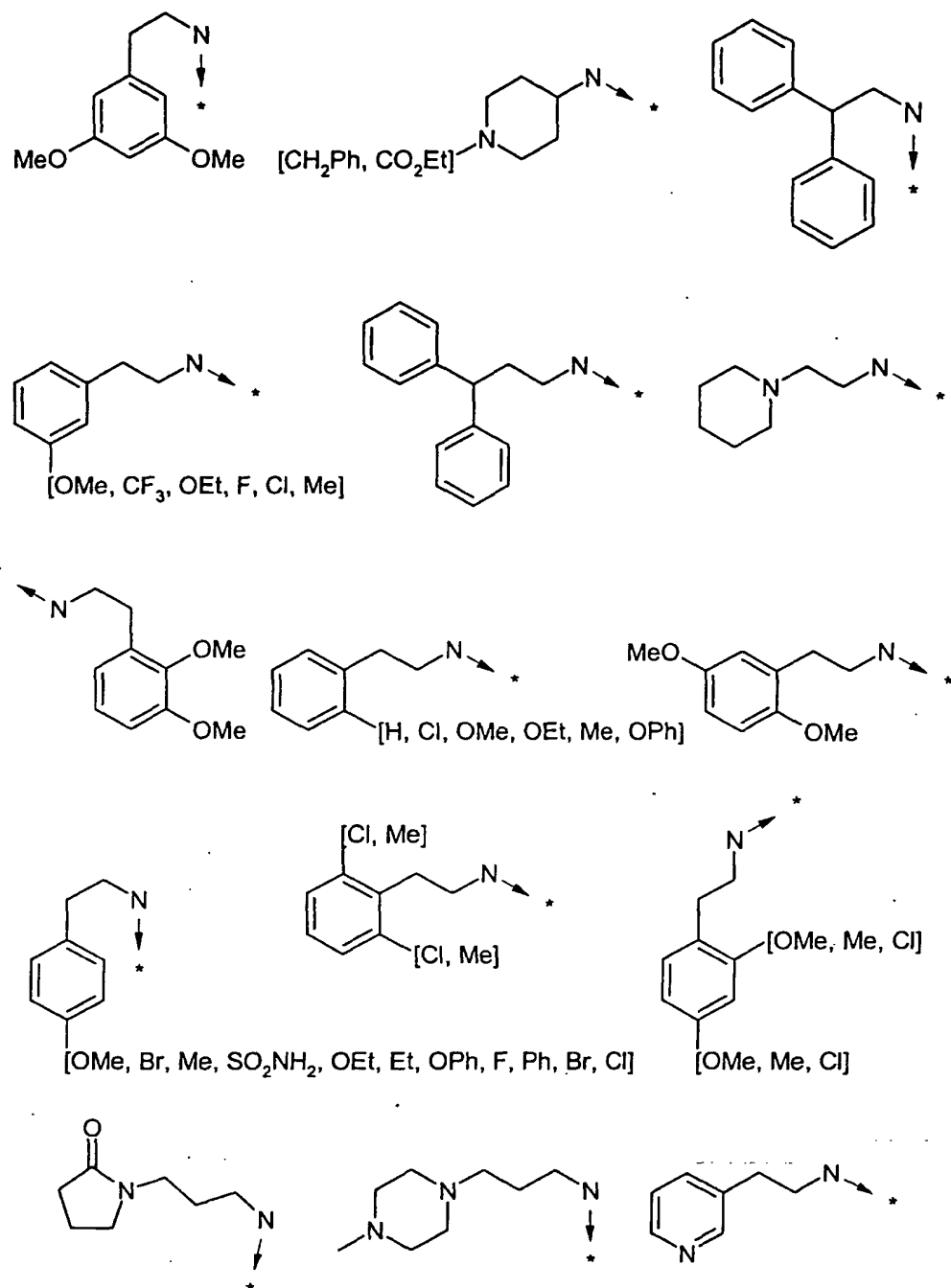


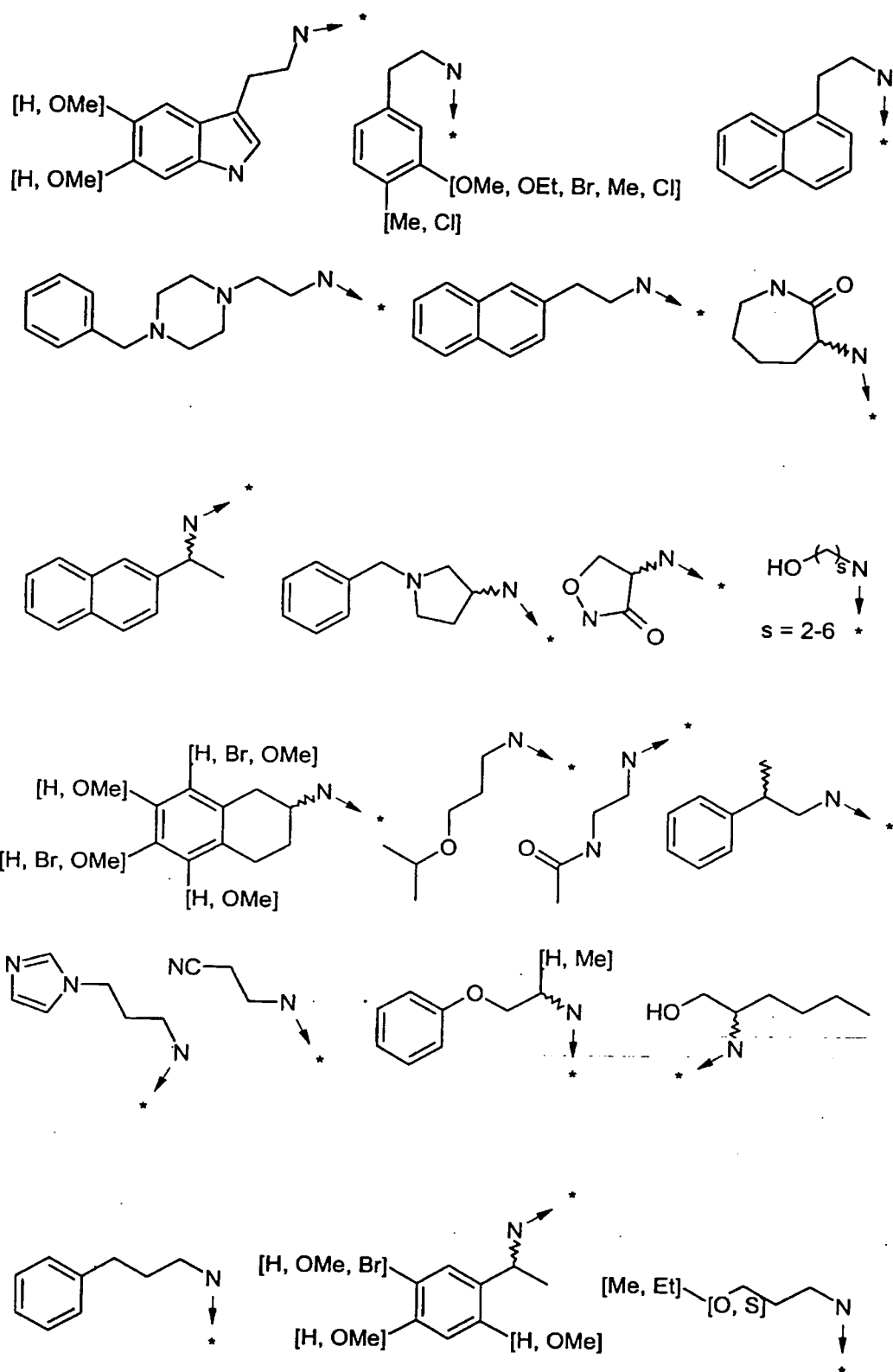
5 dans laquelle i représente un entier de 1 à 3 ;

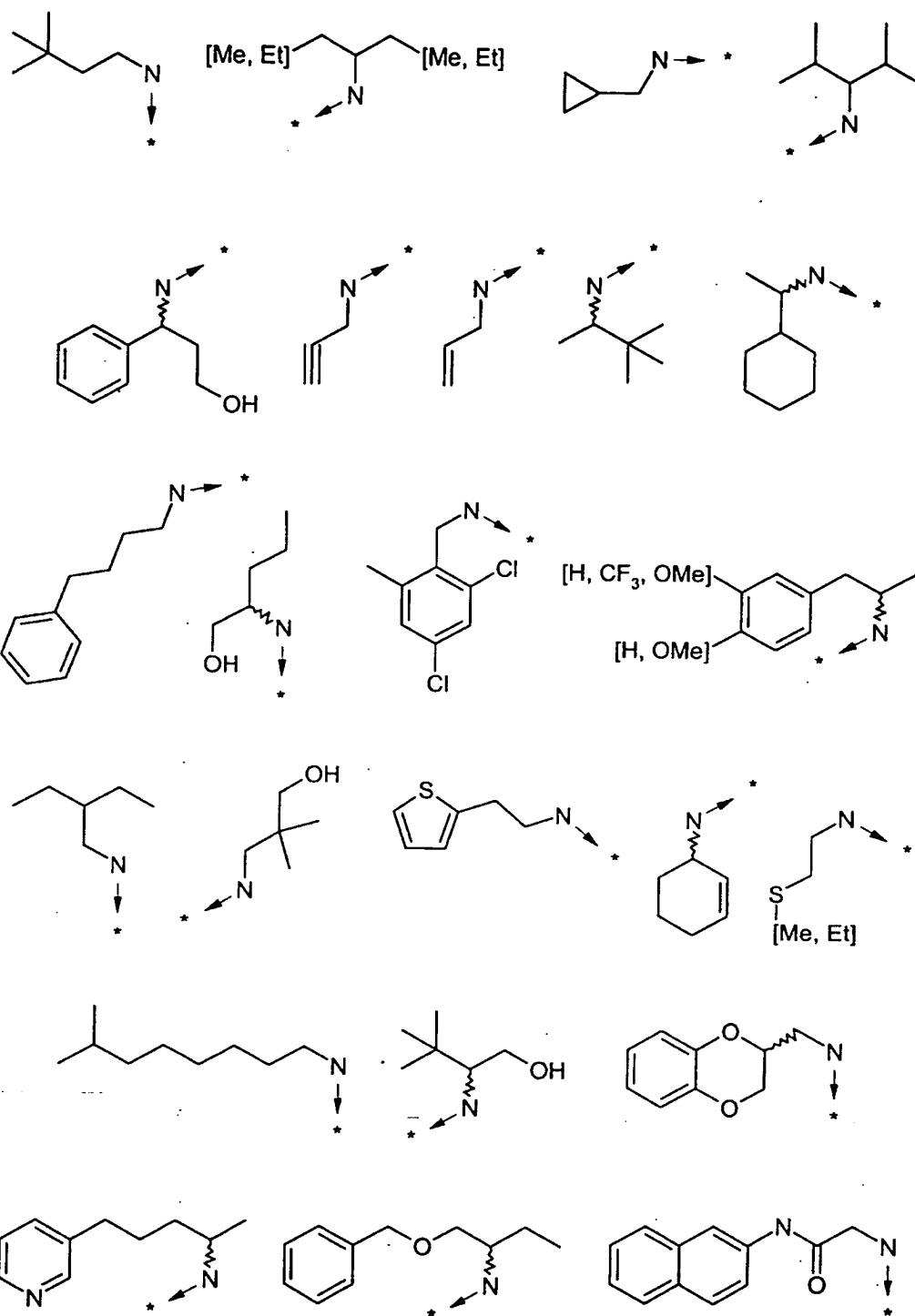
R5 représente l'un des radicaux suivants :

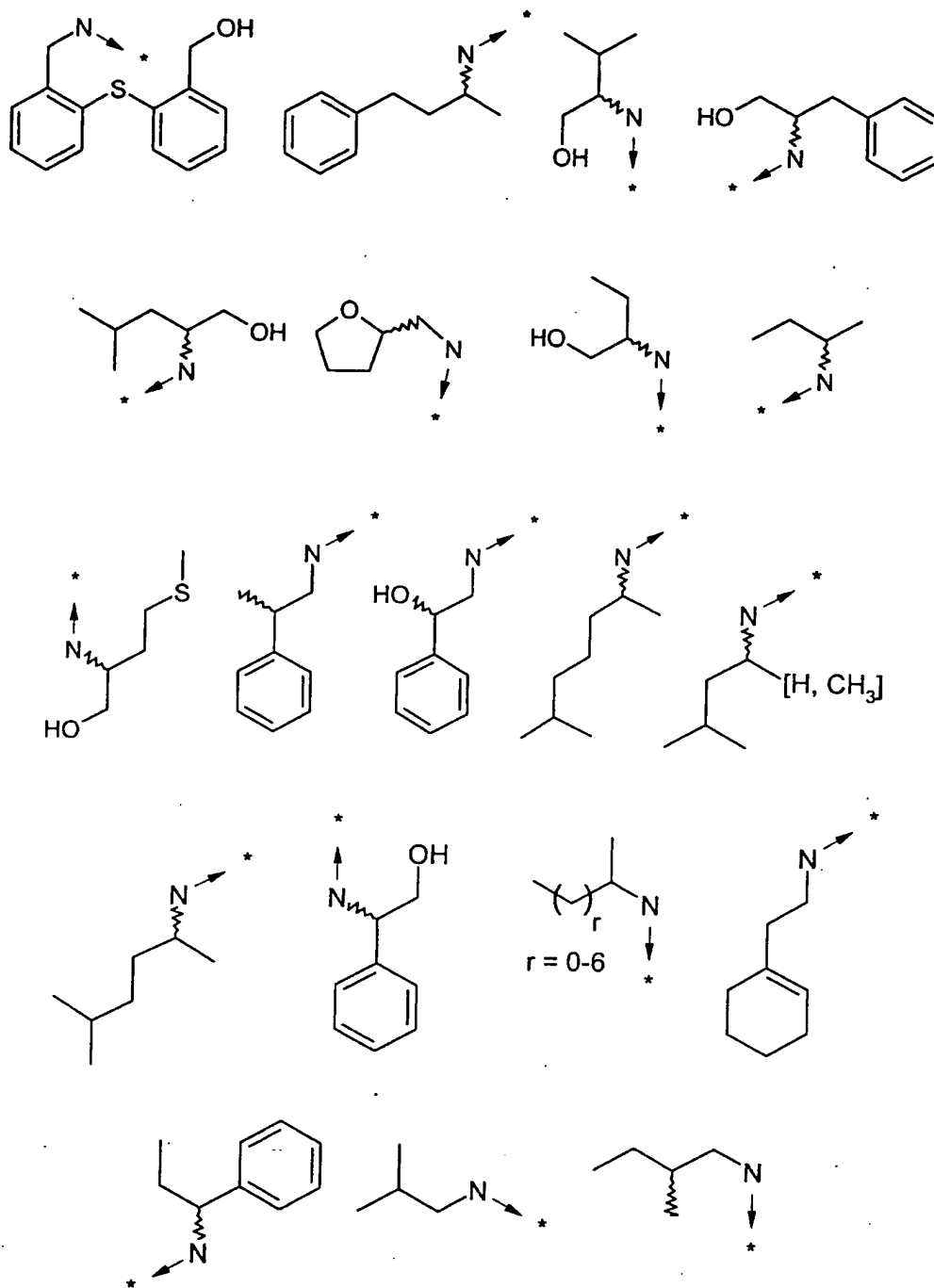


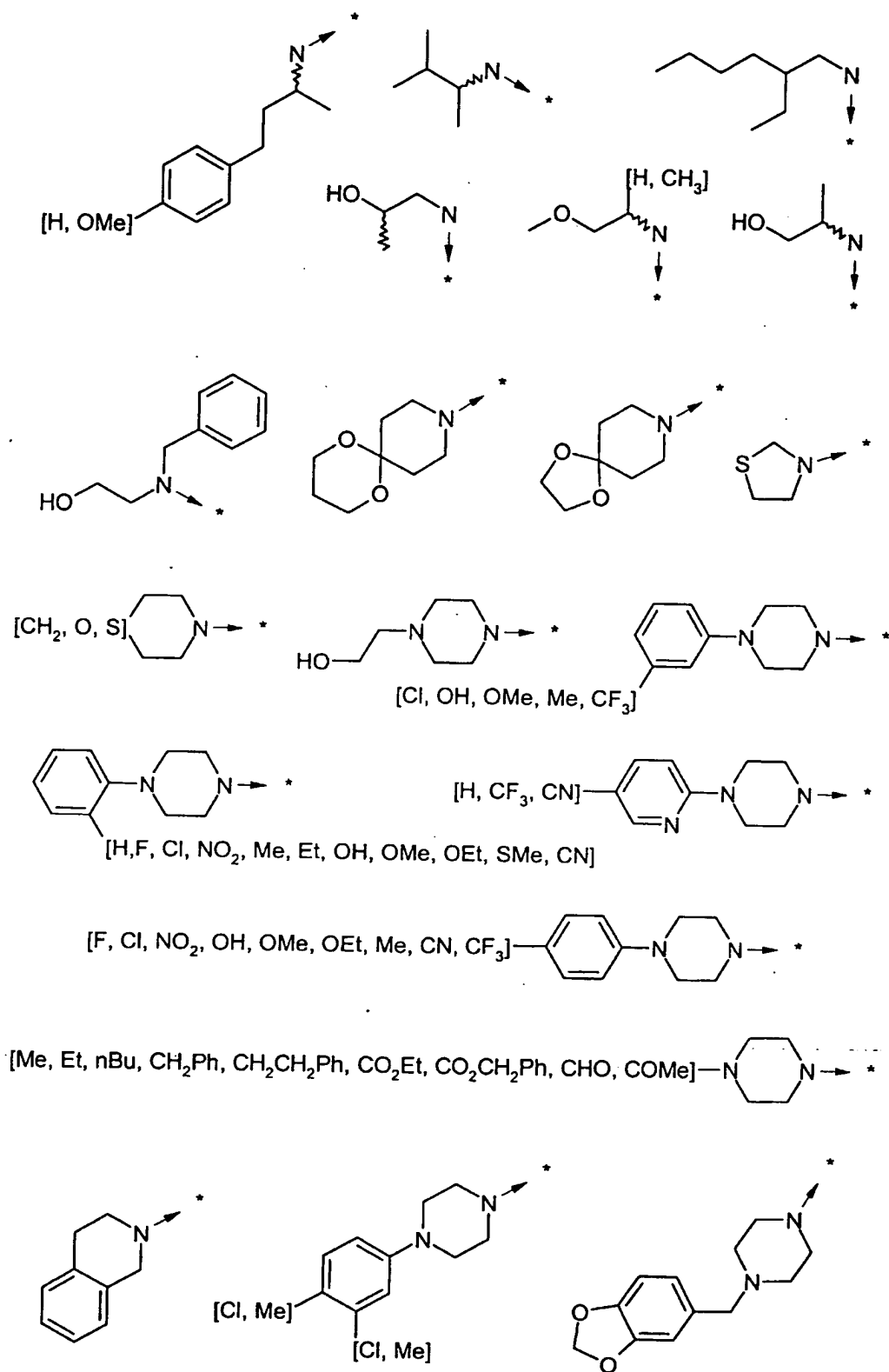


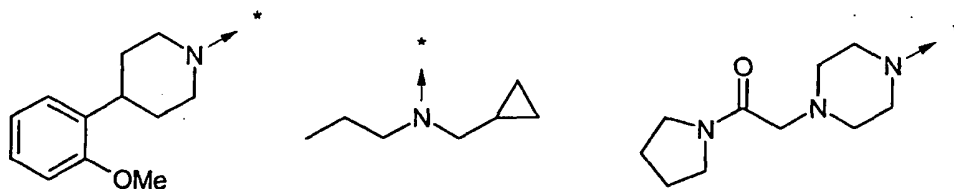
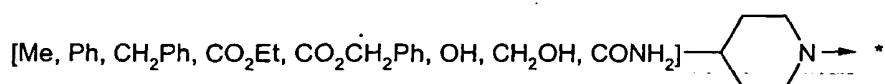
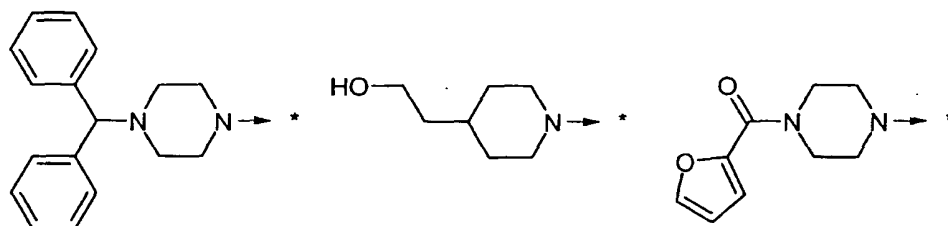
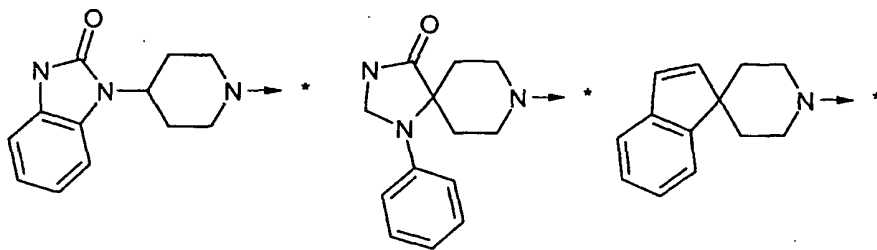
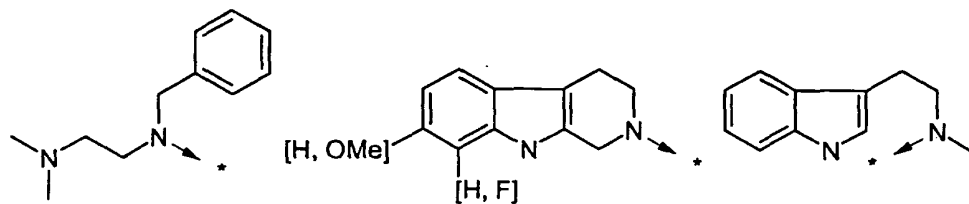
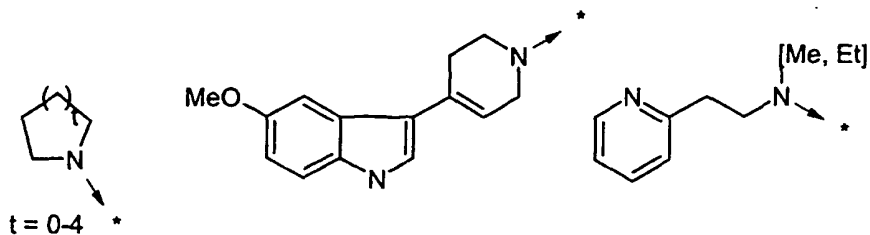


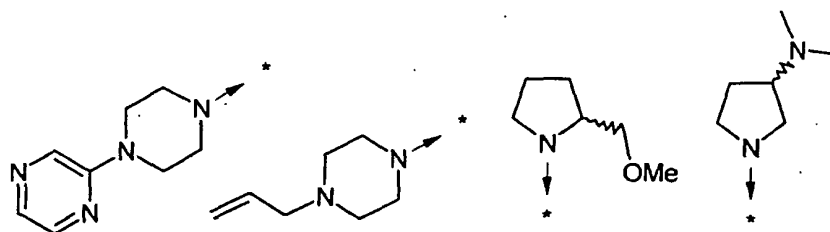
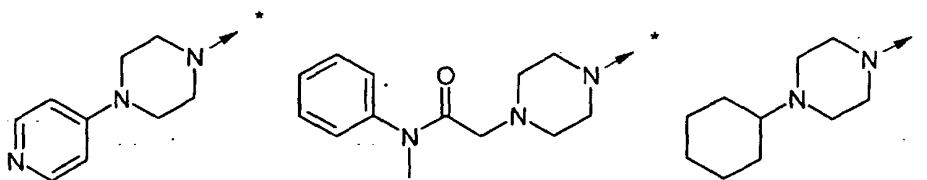
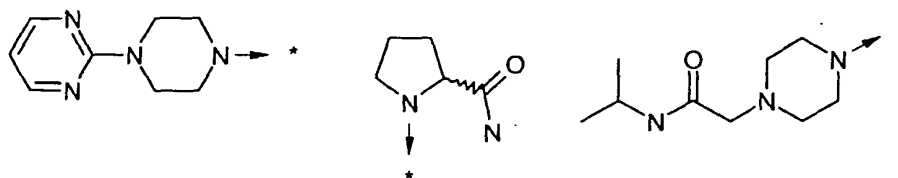
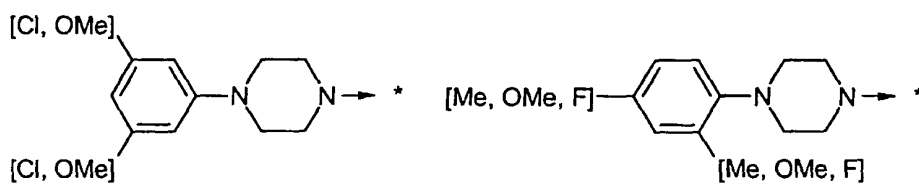
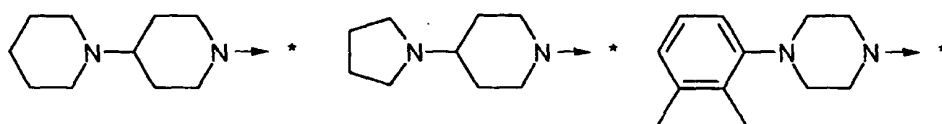
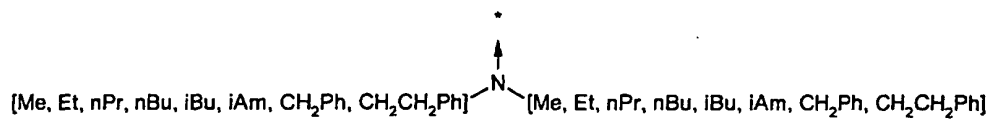
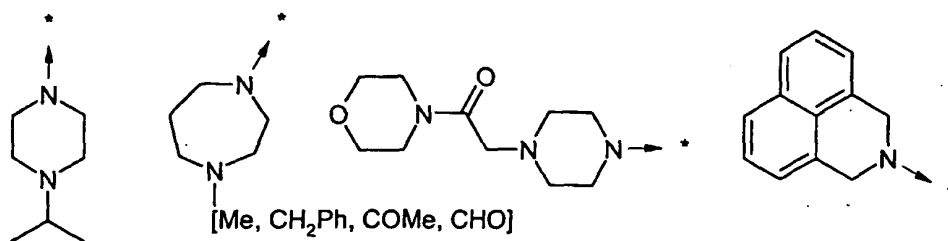


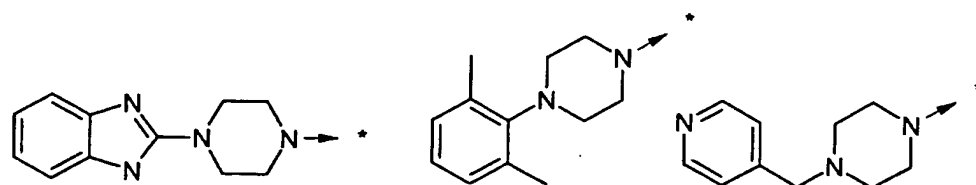
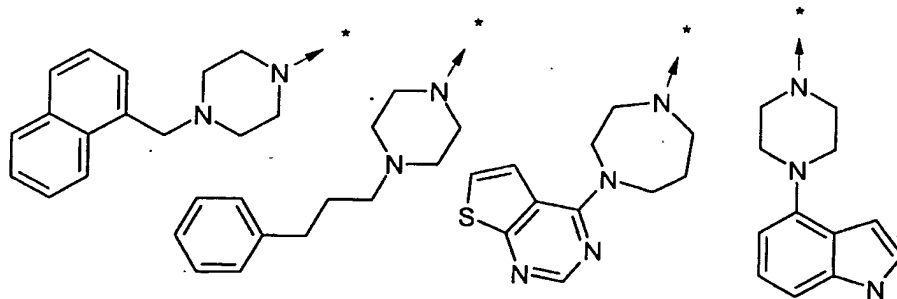
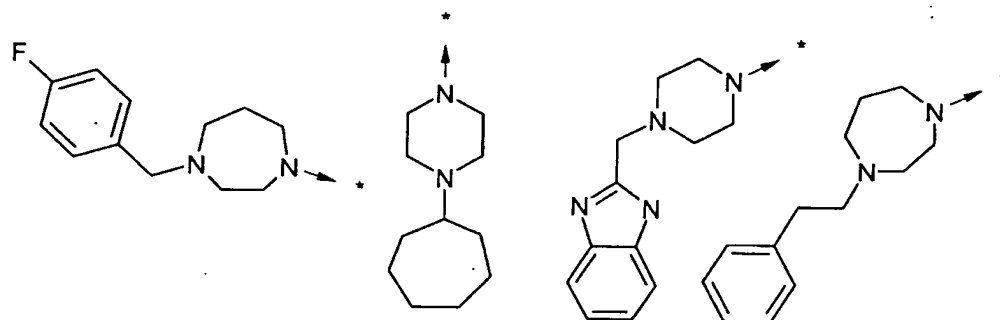
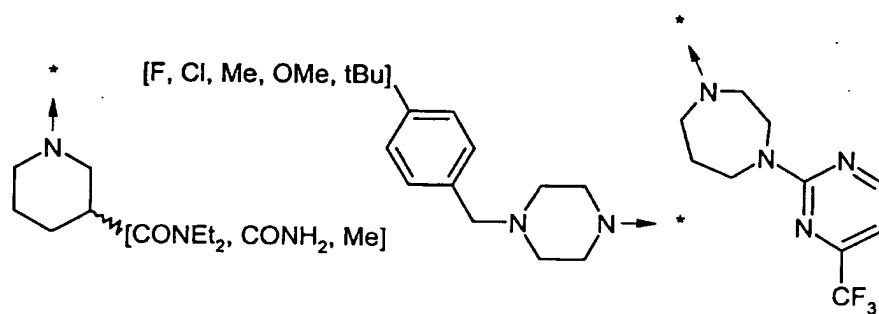
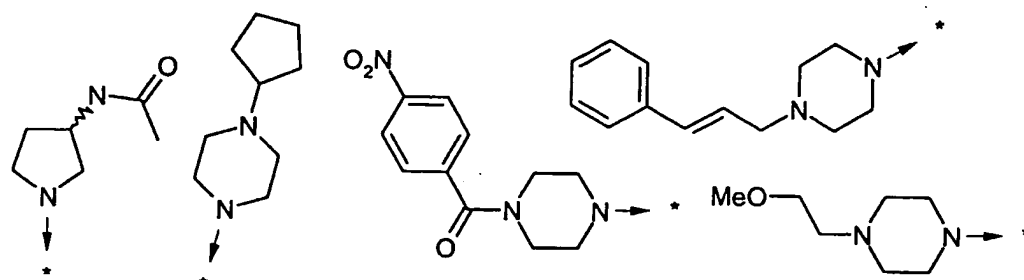


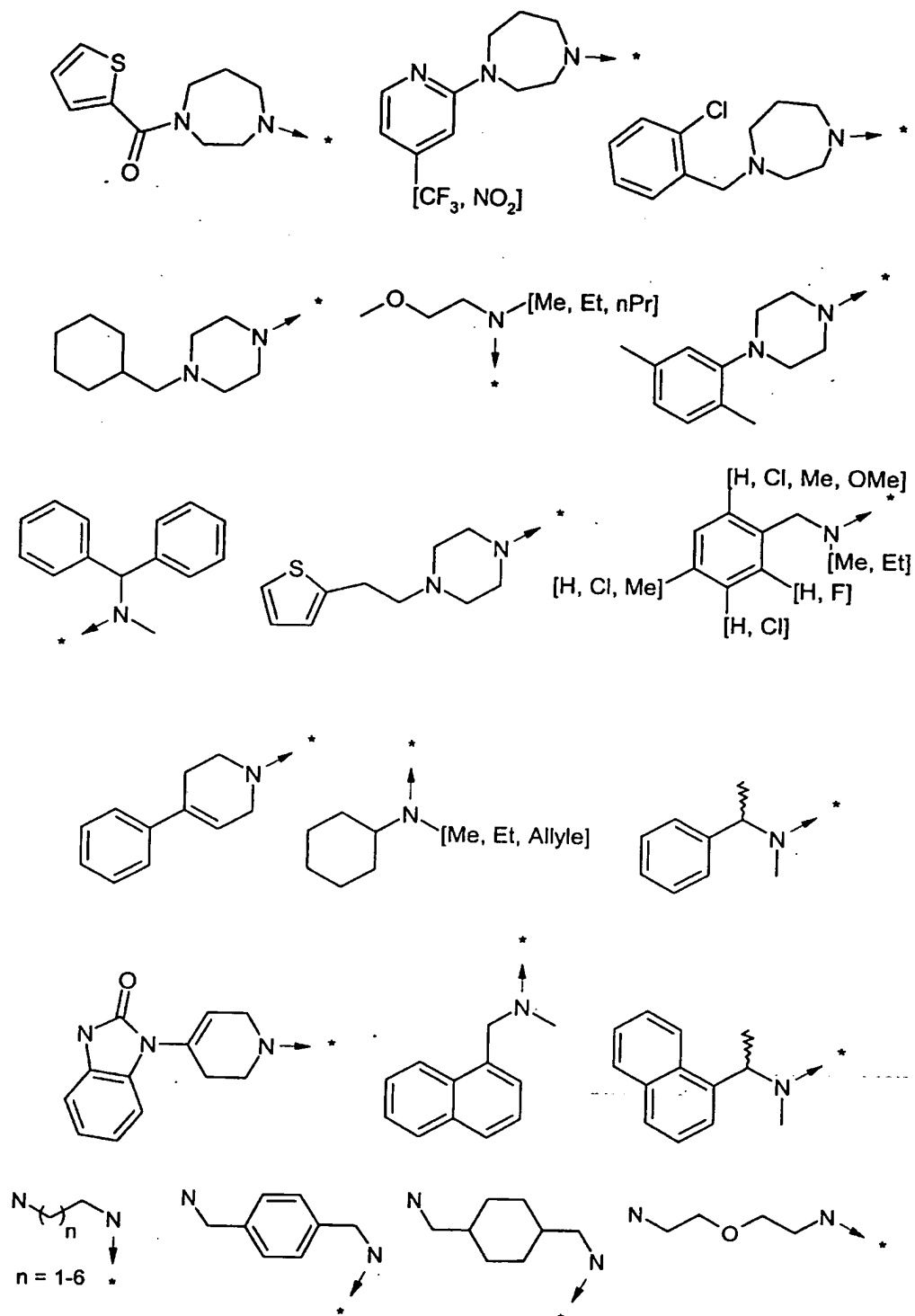


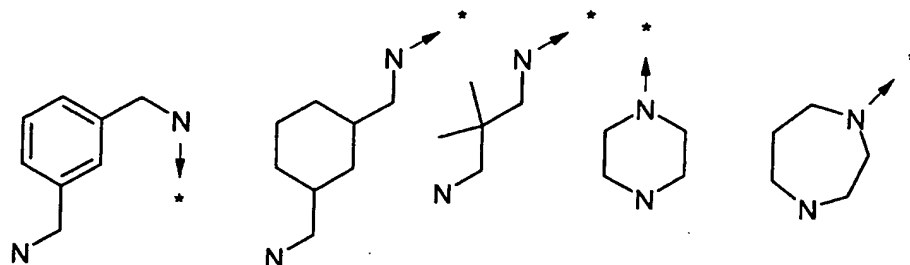






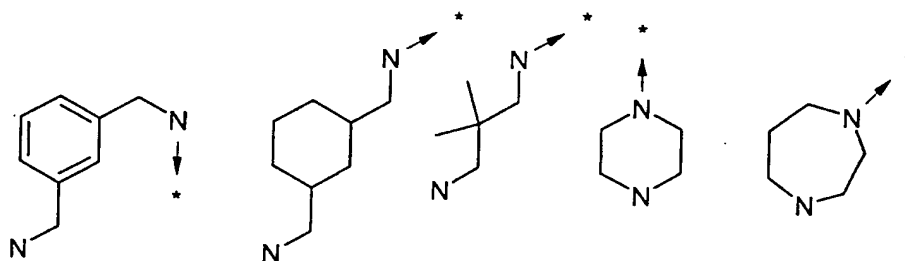
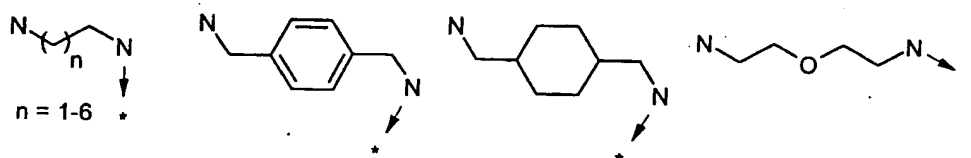






R10

représente l'un des radicaux suivants :

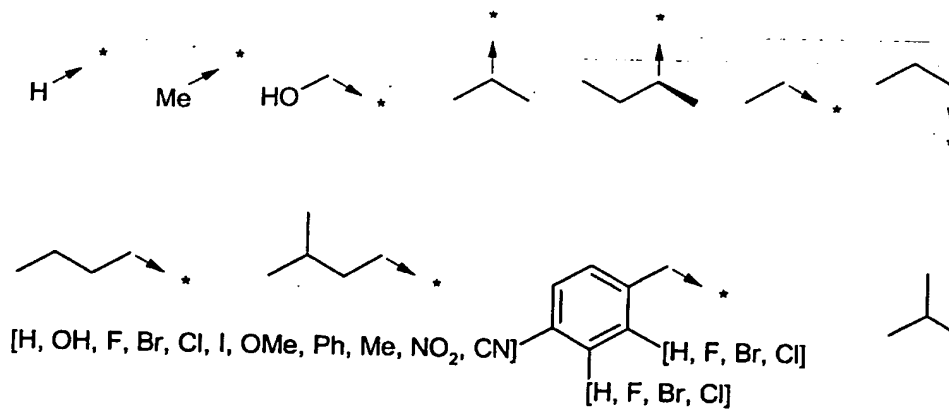


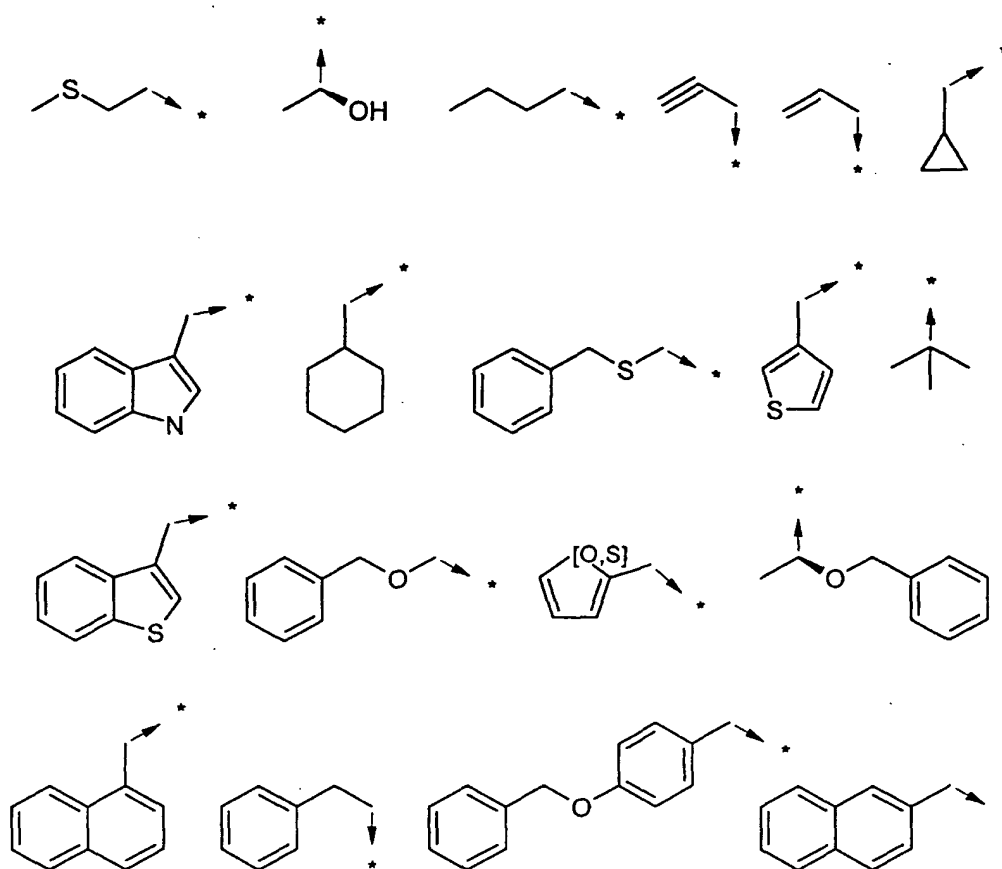
R11

représente H ;

R12

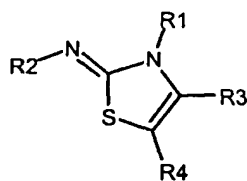
représente l'un des radicaux suivants :





étant entendu que pour R4, lorsque le groupe aryle est substitué, il peut l'être de 1 à 5 fois (outre la liaison qui le relie au reste de la molécule) par des radicaux choisis indépendamment parmi le groupe composé d'un atome halogène et d'un radical alkyle ou alkoxy.

- 5 4. Composé selon l'une des revendications 1 à 3, caractérisé en ce qu'il répond à la formule générale (II)



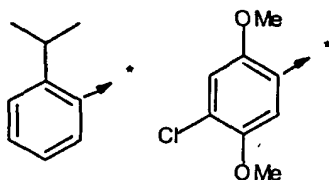
(II)

dans laquelle :

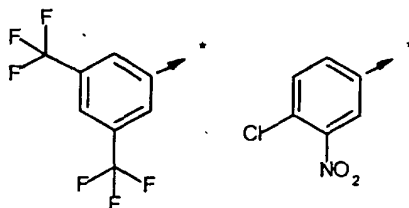
- soit R1 représente l'un des radicaux ci-après



R2 représente l'un des radicaux ci-après



R3 représente l'un des radicaux ci-après

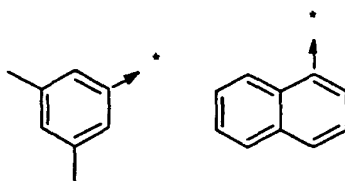


5 et R4 représente H ;

- soit encore R1 représente l'un des radicaux ci-après



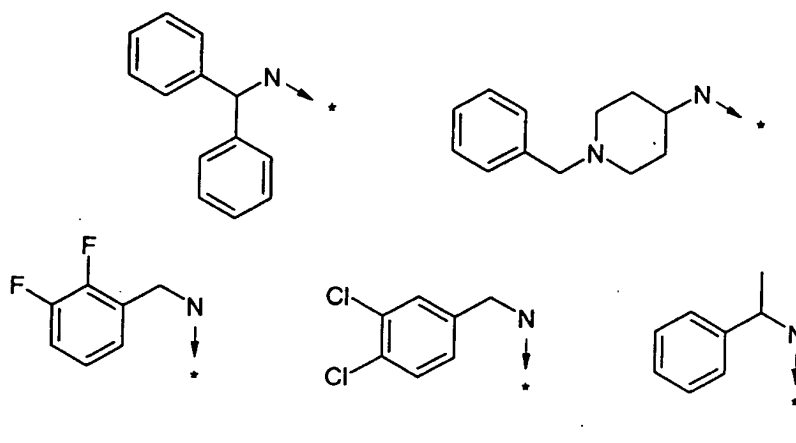
R2 représente l'un des radicaux ci-après



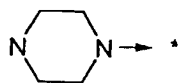
R3 représente COR5,

R4 représente H,

et R5 représente l'un des radicaux ci-après

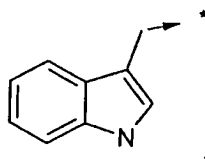


- soit enfin R1 représente le radical $-C(R_{11})(R_{12})-CO-R_{10}$ dans lequel
R10 représente le radical

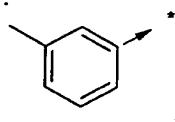


R11 représente H

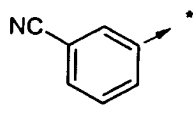
5 et R12 représente le radical



R2 représente le radical

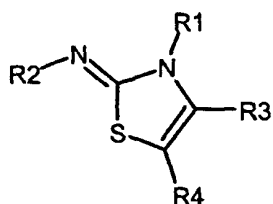


R3 représente le radical



et R4 représente H.

5. Procédé de préparation d'un composé de formule générale (I)a



(I)a

dans laquelle :

R1 représente un radical $-\text{CH}_2-\text{A1}-\text{NH}_2$, dans lequel A1 représente un radical $-(\text{CH}_2)_n-$, $-(\text{CH}_2)_n-\text{O}-(\text{CH}_2)_p-$, aralkylène ou cycloalkylalkylène, n et p représentant des entiers de 1 à 6 ;

R2 et R4 représentent les mêmes radicaux que dans la formule générale (I) telle que définie dans la revendication 1 ;

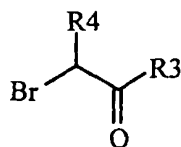
et R3 représente les mêmes radicaux que dans la formule générale (I) telle que définie dans la revendication 1, excepté les radicaux $-\text{CO}-\text{R5}$;

10 ledit procédé étant caractérisé en ce qu'il comprend les étapes successives suivantes :

1) traitement, dans un solvant aprotique comme le dichlorométhane ou le diméthylformamide, d'une résine p-nitrophénylcarbonate de Wang avec un large excès de diamine symétrique $\text{R1}-\text{NH}_2$;

2) traitement, dans un solvant aprotique comme le dichlorométhane ou le diméthylformamide, de la résine isolée après l'étape 1) avec un isothiocyanate aromatique de formule générale $\text{R2}-\text{N}=\text{C}=\text{S}$ dans laquelle le radical R2 a la même signification que dans la formule générale (I)a ;

3) traitement, dans un solvant aprotique comme le dioxane ou le diméthylformamide, de la résine obtenue à l'étape 2) avec le composé de formule générale (III)



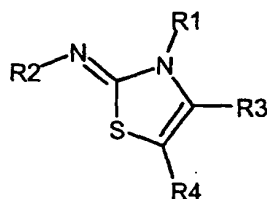
(III)

dans laquelle les radicaux R3 et R4 sont identiques à ceux qui ont été définis dans la formule générale (I)a ;

4) clivage de la résine dans des conditions acides ;

5) traitement dans des conditions basiques du produit obtenu après l'étape 4).

5 6. Procédé de préparation d'un composé de formule générale (I)b



(I)b

dans laquelle :

R1 représente les mêmes radicaux que dans la formule générale (I) telle que définie dans la revendication 1, excepté les radicaux du type $-\text{CH}_2-\text{A1}-\text{NH}_2$, dans lequel A1 représente un radical $-(\text{CH}_2)_n-$, $-(\text{CH}_2)_n-\text{O}-(\text{CH}_2)_p-$, aralkylène ou cycloalkylalkylène, n et p représentant des entiers de 1 à 6, et excepté également les radicaux $-\text{C}(\text{R11})(\text{R12})-\text{CO}-\text{R10}$;

R2 représente un radical aminoalkylphényle ;

R3 représente les mêmes radicaux que dans la formule générale (I) telle que définie dans la revendication 1, excepté les radicaux $-\text{CO}-\text{R5}$;

15 et R4 représente les mêmes radicaux que dans la formule générale (I) telle que définie dans la revendication 1 ;

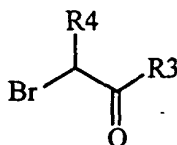
ledit procédé étant caractérisé en ce qu'il comprend les étapes successives suivantes :

1) traitement, dans un solvant aprotique comme le dichlorométhane ou le diméthylformamide, d'une résine p-nitrophénylcarbonate de Wang avec un excès d'aminoalkylaniline de formule générale $\text{R2}-\text{NH}_2$ dans laquelle le radical R2 a la même signification que dans la formule générale (I)b ;

2) traitement, dans un solvant aprotique comme le dichlorométhane ou le diméthylformamide, de la résine isolée après l'étape 1) avec un isothiocyanate de

formule générale $R1-N=C=S$ dans laquelle le radical $R1$ a la même signification que dans la formule générale (I)b ;

3) traitement, dans un solvant aprotique comme le dioxane ou le diméthylformamide, de la résine obtenue à l'étape 2) avec le composé de formule générale (III)



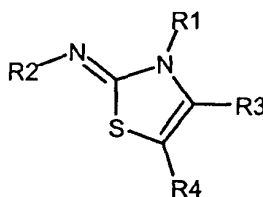
(III)

5 dans laquelle les radicaux $R3$ et $R4$ sont identiques à ceux qui ont été définis dans la formule générale (I)b ;

4) clivage de la résine dans des conditions acides ;

5) traitement dans des conditions basiques du produit obtenu après l'étape 4).

7. Procédé de préparation d'un composé de formule générale (I)c



(I)c

10 dans laquelle :

$R1$ représente un radical $-CH_2-A1-NH_2$, dans lequel $A1$ représente un radical $-(CH_2)_n-$, $-(CH_2)_n-O-(CH_2)_p-$, aralkylène ou cycloalkylalkylène, n et p représentant des entiers de 1 à 6 ;

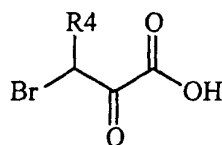
15 $R2$ représente les mêmes radicaux que dans la formule générale (I) telle que définie dans la revendication 1 ;

$R3$ représente un radical $-CO-R5$;

et $R4$ et $R5$ représentent les mêmes radicaux que dans la formule générale (I) telle que définie dans la revendication 1 ;

ledit procédé étant caractérisé en ce qu'il comprend les étapes successives suivantes :

- 1) traitement, dans un solvant aprotique comme le dichlorométhane ou le diméthylformamide, d'une résine p-nitrophénylcarbonate de Wang avec un large excès de diamine symétrique de formule générale $R1-NH_2$ dans laquelle le radical $R1$ a la même signification que dans la formule générale (I)c ;
- 5 2) traitement, dans un solvant aprotique comme le dichlorométhane ou le diméthylformamide, de la résine isolée après l'étape 1) avec un isothiocyanate aromatique de formule générale $R2-N=C=S$ dans laquelle le radical $R2$ a la même signification que dans la formule générale (I)c ;
- 3) traitement, dans un solvant aprotique comme le dioxane ou le diméthylformamide, de
10 la résine obtenue à l'étape 2) avec l'acide de formule générale (IV)

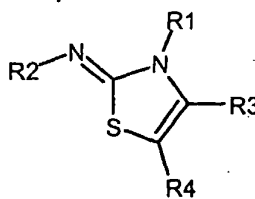


(IV)

dans laquelle le radical $R4$ est identique à celui qui a été défini dans la formule générale (I)c ;

- 4) couplage peptidique ;
- 5) clivage de la résine dans des conditions acides ;
- 15 6) traitement dans des conditions basiques du produit obtenu après l'étape 5).

8. Procédé de préparation d'un composé de formule générale (I)d



(I)d

dans laquelle :

$R1$ représente les mêmes radicaux que dans la formule générale (I) telle que définie dans la revendication 1, excepté les radicaux du type $-CH_2-A1-NH_2$, dans lequel $A1$

représente un radical $-(CH_2)_n-$, $-(CH_2)_n-O-(CH_2)_p-$, aralkylène ou cycloalkylalkylène, n et p représentant des entiers de 1 à 6, et excepté également les radicaux $-C(R11)(R12)-CO-R10$;

R2 représente un radical aminoalkylphényle ;

5 R3 représente un radical $-CO-R5$;

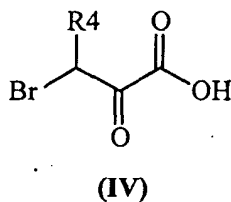
et R4 et R5 représentent les mêmes radicaux que dans la formule générale (I) telle que définie dans la revendication 1 ;

ledit procédé étant caractérisé en ce qu'il comprend les étapes successives suivantes :

1) traitement, dans un solvant aprotique comme le dichlorométhane ou le diméthylformamide, d'une résine p-nitrophénylcarbonate de Wang avec un excès d'aminoalkylaniline de formule générale $R2-NH_2$ dans laquelle le radical R2 a la même signification que dans la formule générale (I)d ;

2) traitement, dans un solvant aprotique comme le dichlorométhane ou le diméthylformamide, de la résine isolée après l'étape 1) avec un isothiocyanate de formule générale $R1-N=C=S$ dans laquelle le radical R1 a la même signification que dans la formule générale (I)d ;

3) traitement, dans un solvant aprotique comme le dioxane ou le diméthylformamide, de la résine obtenue à l'étape 2) avec l'acide de formule générale (IV)



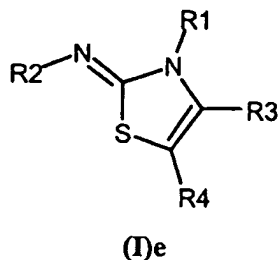
dans laquelle le radical R4 a la même signification que dans la formule générale (I)d ;

4) couplage peptidique ;

5) clivage de la résine dans des conditions acides ;

6) traitement dans des conditions basiques du produit obtenu après l'étape 5).

9. Procédé de préparation d'un composé de formule générale (I)e



dans laquelle :

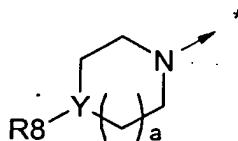
R1 représente les mêmes radicaux que dans la formule générale (I) telle que définie dans la revendication 1, excepté les radicaux du type $-\text{CH}_2-\text{A1}-\text{NH}_2$, dans lequel A1 représente un radical $-(\text{CH}_2)_n-$, $-(\text{CH}_2)_n-\text{O}-(\text{CH}_2)_p-$, aralkylène ou cycloalkylalkylène, n et p représentant des entiers de 1 à 6, et excepté également les radicaux $-\text{C}(\text{R11})(\text{R12})-\text{CO}-\text{R10}$;

R2 représente les mêmes radicaux que dans la formule générale (I) telle que définie dans la revendication 1 ;

R3 représente un radical $-\text{CO}-\text{R5}$;

10 R4 représente H ;

R5 représente un radical $-\text{NH}-\text{CH}_2-\text{A1}-\text{NH}_2$, dans lequel A1 représente un radical alkylène linéaire ou ramifié comptant de 1 à 6 atomes de carbone, $-(\text{CH}_2)_n-\text{O}-(\text{CH}_2)_p-$, aralkylène ou cycloalkylalkylène, n et p représentant des entiers de 1 à 6, ou encore R5 représente le radical $\text{N}(\text{R6})(\text{R7})$ répondant à la formule générale suivante :



15 dans laquelle :

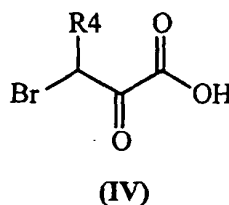
R8 représente H ;

Y représente N ;

a représente 1 ou 2 ;

ledit procédé étant caractérisé en ce qu'il comprend les étapes successives suivantes :

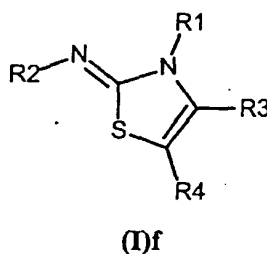
- 1) traitement, dans un solvant aprotique comme le dichlorométhane ou le diméthylformamide, d'une résine p-nitrophénylcarbonate de Wang avec un large excès de diamine symétrique de formule générale R5-H ;
- 2) couplage peptidique avec l'acide de formule générale (IV) sur la résine obtenue à l'étape 1)



dans laquelle le radical R4 a la même signification que dans la formule générale (I)e ;

- 3) réaction de l'amine primaire de formule générale R1-NH₂ avec l'isothiocyanate de formule générale R2-NCS dans un solvant tel que le diméthylformamide ou le dioxane, R1 et R2 ayant les mêmes significations que dans la formule générale (I)e ;
- 4) addition de la thiourée obtenue à l'étape 3) à la résine obtenue à l'étape 2) et chauffage du mélange ;
- 5) clivage de la résine dans des conditions acides ;
- 6) traitement dans des conditions basiques du produit obtenu après l'étape 5).

10. Procédé de préparation d'un composé de formule générale (I)f

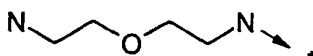


- dans laquelle :

R1 représente un radical -C(R11)(R12)-CO-R10 ;

R2, R3 et R4 représentent les mêmes radicaux que dans la formule générale (I) telle que définie dans la revendication 1 ;

R10 représente un radical amino(C₂-C₇)alkylamino, ((aminoalkyl)aryl)alkylamino, ((aminoalkyl)cycloalkyl)alkylamino, pipérazinyle, homopipérazinyle, ou R10 représente le radical représenté ci-dessous :



R11 représente H ;

- 5 R12 représente H ou un radical alkyle, (C₃-C₇)cycloalkyle, aralkyle carbocyclique ou hétérocyclique éventuellement substitué, propargyle, allyle, hydroxyalkyle, alkylthioalkyle, arylalkylalkoxyalkyle, arylalkylthioalkoxyalkyle ;

ledit procédé étant caractérisé en ce qu'il comprend les étapes successives suivantes :

- 1) traitement, dans un solvant aprotique comme le dichlorométhane ou le diméthylformamide, d'une résine p-nitrophénylcarbonate de Wang avec un large excès de diamine symétrique de formule générale R10-H dans laquelle R10 a la même signification que dans la formule générale (I)f ;
- 2) couplage peptidique de la résine obtenue à l'étape 1) avec un acide aminé de formule générale HOOC-C(R11)(R12)-NH-Fmoc dans laquelle R11 et R12 ont la même signification que dans la formule générale (I)f ;
- 3) clivage du groupe Fmoc de la résine obtenue à l'étape 2) ;
- 4) réaction de la résine obtenue à l'étape 3) avec un isothiocyanate de formule générale R2-NCS dans laquelle R2 a la même signification que dans la formule générale (I)f ;
- 5) clivage de la résine dans des conditions acides ;
- 20 6) traitement dans des conditions basiques du produit obtenu après l'étape 5).

11. A titre de médicament, un produit selon l'une des revendications 1 à 4 ou un sel pharmaceutiquement acceptable dudit produit.

12. Composition pharmaceutique comprenant à titre de principe actif un produit selon l'une des revendications 1 à 4 ou un sel pharmaceutiquement acceptable dudit produit.

- 25 13. Utilisation d'un produit selon l'une des revendications 1 à 4 ou d'un sel pharmaceutiquement acceptable dudit produit pour préparer un médicament destiné à

traiter les états pathologiques ou les maladies dans lesquels un (ou plusieurs) des récepteurs de la somatostatine est (sont) impliqué(s).

14. Utilisation selon la revendication 13, caractérisée en ce que les états pathologiques ou les maladies à traiter sont choisis parmi le groupe composé des états pathologiques ou des maladies qui suivent : l'acromégalie, les adénomes hypophysaires, la maladie de Cushing, les gonadotrophinomes et les prolactinomes, les effets secondaires cataboliques des glucocorticoïdes, le diabète insulino-dépendant, la rétinopathie diabétique, la néphropathie diabétique, le syndrome X, le phénomène de Dawn, l'angiopathie, l'angioplastie, l'hyperthyroïdie, le gigantisme, les tumeurs gastroentéropancréatiques endocriniennes dont le syndrome carcinoïde, le VIPome, l'insulinome, la nésidioblastose, l'hyperinsulinémie, le glucagonome, le gastrinome et le syndrome de Zollinger-Ellison, le GRFome ainsi que le saignement aigu des varices œsophagiennes, les ulcères, le reflux gastroœsophagien, le reflux gastroduodénal, la pancréatite, les fistules entérocutanées et pancréatiques mais aussi les diarrhées, les diarrhées réfractaires du syndrome d'immunodépression acquise, la diarrhée chronique sécrétoire, la diarrhée associée avec le syndrome de l'intestin irrité, les diarrhées induites par la chimiothérapie, les troubles liés au peptide libérateur de gastrine, les pathologies secondaires aux greffes intestinales, l'hypertension portale ainsi que les hémorragies des varices chez des malades avec cirrhose, l'hémorragie gastro-intestinale, l'hémorragie de l'ulcère gastroduodénal, le saignement des vaisseaux greffés, la maladie de Crohn, les scléroses systémiques, le dumping syndrome, le syndrome du petit intestin, l'hypotension, la sclérodermie et le carcinome thyroïdien médullaire, les maladies liées à l'hyperprolifération cellulaire comme les cancers et plus particulièrement le cancer du sein, le cancer de la prostate, le cancer thyroïdien ainsi que le cancer pancréatique et le cancer colorectal, les fibroses et plus particulièrement la fibrose du rein, la fibrose du foie, la fibrose du poumon, la fibrose de la peau, également la fibrose du système nerveux central ainsi que celle du nez et la fibrose induite par la chimiothérapie, et, dans d'autres domaines thérapeutiques, les céphalées y compris les céphalées associées aux tumeurs hypophysaires, les douleurs, les désordres inflammatoires comme l'arthrite, les accès de panique, la chimiothérapie, la cicatrisation des plaies, l'insuffisance rénale résultant d'un retard de croissance, l'hyperlipidémie, l'obésité et le retard de croissance lié à l'obésité, le retard de croissance utérin, la dysplasie du squelette, le syndrome de Noonan, le syndrome d'apnée du sommeil, la maladie de Graves, la maladie polykystique des ovaires, les pseudokystes pancréatiques et ascites, la leucémie, le méningiome, la cachexie cancéreuse, l'inhibition des H pylori, le psoriasis, le rejet chronique des allogreffes ainsi que la maladie d'Alzheimer et enfin l'ostéoporose.

15. Utilisation selon la revendication 14, caractérisée en ce que les états pathologiques ou les maladies à traiter sont choisis parmi le groupe composé des états pathologiques ou des maladies qui suivent : l'acromégalie, les adénomes hypophysaires ou les tumeurs gastroentéropancréatiques endocriniennes dont le syndrome carcinoïde, et les saignements gastro-intestinaux.
- 5

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/FR 00/02095

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D277/42 C07D277/56 C07D417/00 A61K31/426 A61P5/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

BEILSTEIN Data, CHEM ABS Data, WPI Data, EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------|
| X | KALCHEVA V ET AL: "Ring transformations of oxazoles and their derivatives. Synthesis of 2,3-dihydro-2-(2-hydroxyphenylimino)-4-methylthiazoles by reaction of 2-(2-oxopropylthio)benzoxazoles with amines" LIEBIGS ANNALEN DER CHEMIE, no. 12, December 1993 (1993-12), pages 1319-22, XP002136745 the whole document --- -/-- | 1-3 |

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"G" document member of the same patent family

Date of the actual completion of the international search

7 November 2000

Date of mailing of the international search report

21/11/2000

Name and mailing address of the ISA

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Authorized officer

Allard, M

INTERNATIONAL SEARCH REPORT

International Application No

PCT/FR 00/02095

| C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT | | |
|--|---|-----------------------|
| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| X | OMAR A M M E ET AL: "Synthesis and biological evaluation of new 2,3-dihydrothiazole derivatives for antimicrobial, antihypertensive, and anticonvulsant activities" JOURNAL OF PHARMACEUTICAL SCIENCES, vol. 73, no. 8, August 1984 (1984-08), pages 1166-8, XP002136746 the whole document | 1-3, 11, 12 |
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| X | EP 0 023 964 A (HOECHST AKTIENGESELLSCHAFT) 18 February 1981 (1981-02-18) the whole document | 1-3, 11, 12 |
| X | US 4 346 088 A (LANG H J ET AL) 24 August 1982 (1982-08-24) the whole document | 1-3, 11, 12 |
| X | DATABASE CROSSFIRE 'Online! Beilstein Institut fuer Literatur der organischen Chemie; XP002136748 * Beilstein Registry Number 21007 , 6514267 et 208869 * & POL. J. CHEM., vol. 58, no. 4/5/6, 1984, pages 447-454, the whole document | 1-3 |
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INTERNATIONAL SEARCH REPORT

International Application No.

PCT/FR 00/02095

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|------------|--|-----------------------|
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| X | <p>DATABASE CROSSFIRE 'Online! Beilstein Institut fuer Literatur der organischen Chemie; XP002136754 * Beilstein Registry Number 1137874 * & CHEM. PHARM. BULL., vol. 26, 1978, pages 3017-3022, ---</p> | 1-3 |
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INTERNATIONAL SEARCH REPORT

International Application No
PCT/FR 00/02095

| C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT | | |
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| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| X | DATABASE CROSSFIRE 'Online! Beilstein Institut fuer Literatur der organischen Chemie; XP002136756 * Beilstein Registry Number 6814219 et 6811955 * & SYNTH. COMMUN., vol. 24, no. 4, 1994, pages 495-512, --- | 1-3 |
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INTERNATIONAL SEARCH REPORT

International application No.

PCT/FR00/02095

Continued from field I.2

Claim nos.: 1-3, 11, 12 (all in part)

The initial phase of the search revealed a very large number of documents that were relevant to the novelty of claim nos. 1-3, 11 and 12. So many documents were found that it is impossible to establish which parts of these claims can be considered as defining the subject matter for which protection could legitimately be sought (PCT Art. 6). It was therefore impossible to carry out a meaningful, complete search and provide a complete search report covering the entire scope of these claims. The search and the search report in respect of these claims can only be considered complete to the extent that they address the examples given in the application.

The applicant is advised that patent claims relating to inventions for which no international search has been produced cannot normally be the subject of an international preliminary examination (PCT Rule 66.1(e)). As a general rule, the EPO in its capacity as the authority entrusted with the task of carrying out an international preliminary examination will not conduct a preliminary examination for subjects in respect of which no search has been provided. This also applies to cases where the patent claims were amended after receipt of the international search report (PCT Article 19) or to cases where the applicant presents new patent claims in the course of the PCT Chapter II procedure.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/FR 00/02095

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
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International Application No.

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RAPPORT DE RECHERCHE INTERNATIONALE

Demande Internationale No

PCT/FR 00/02095

A. CLASSEMENT DE L'OBJET DE LA DEMANDE

CIB 7 C07D277/42 C07D277/56 C07D417/00 A61K31/426 A61P5/02

Selon la classification internationale des brevets (CIB) ou à la fois selon la classification nationale et la CIB

B. DOMAINES SUR LESQUELS LA RECHERCHE A PORTE

Documentation minimale consultée (système de classification suivi des symboles de classement)

CIB 7 C07D

Documentation consultée autre que la documentation minimale dans la mesure où ces documents relèvent des domaines sur lesquels a porté la recherche

Base de données électronique consultée au cours de la recherche internationale (nom de la base de données, et si réalisable, termes de recherche utilisés)

BEILSTEIN Data, CHEM ABS Data, WPI Data, EPO-Internal

C. DOCUMENTS CONSIDERES COMME PERTINENTS

| Catégorie * | Identification des documents cités, avec, le cas échéant, l'indication des passages pertinents | no. des revendications visées |
|-------------|--|-------------------------------|
| X | KALCHEVA V ET AL: "Ring transformations of oxazoles and their derivatives. Synthesis of 2,3-dihydro-2-(2-hydroxyphenylimino)-4-methylthiazoles by reaction of 2-(2-oxopropylthio)benzoxazoles with amines" LIEBIGS ANNALEN DER CHEMIE, no. 12, décembre 1993 (1993-12), pages 1319-22, XP002136745 le document en entier --- -/-- | 1-3 |



Voir la suite du cadre C pour la fin de la liste des documents



Les documents de familles de brevets sont indiqués en annexe

* Catégories spéciales de documents cités:

- *A* document définissant l'état général de la technique, non considéré comme particulièrement pertinent
- *E* document antérieur, mais publié à la date de dépôt international ou après cette date
- *L* document pouvant jeter un doute sur une revendication de priorité ou cité pour déterminer la date de publication d'une autre citation ou pour une raison spéciale (telle qu'indiquée)
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X document particulièrement pertinent; l'invention revendiquée ne peut être considérée comme nouvelle ou comme impliquant une activité inventive par rapport au document considéré isolément

Y document particulièrement pertinent; l'invention revendiquée ne peut être considérée comme impliquant une activité inventive lorsque le document est associé à un ou plusieurs autres documents de même nature, cette combinaison étant évidente pour une personne du métier

G document qui fait partie de la même famille de brevets

Date à laquelle la recherche internationale a été effectivement achevée

7 novembre 2000

Date d'expédition du présent rapport de recherche internationale

21/11/2000

Nom et adresse postale de l'administration chargée de la recherche internationale

Office Européen des Brevets, P.B. 5818 Patentaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Fonctionnaire autorisé

Allard, M

RAPPORT DE RECHERCHE INTERNATIONALE

Demande Internationale No
PCT/FR 00/02095

| C.(suite) DOCUMENTS CONSIDERES COMME PERTINENTS | | |
|---|---|-------------------------------|
| Catégorie | Identification des documents cités, avec, le cas échéant, l'indication des passages pertinents | no. des revendications visées |
| X | OMAR A M M E ET AL: "Synthesis and biological evaluation of new 2,3-dihydrothiazole derivatives for antimicrobial, antihypertensive, and anticonvulsant activities" JOURNAL OF PHARMACEUTICAL SCIENCES, vol. 73, no. 8, août 1984 (1984-08), pages 1166-8, XP002136746 le document en entier --- | 1-3, 11, 12 |
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| | -/-- | |

RAPPORT DE RECHERCHE INTERNATIONALE

Demande In: itionale No
PCT/FR 00/02095

| C.(suite) DOCUMENTS CONSIDERES COMME PERTINENTS | | |
|---|---|-------------------------------|
| Catégorie | Identification des documents cités, avec, le cas échéant, l'indication des passages pertinents | no. des revendications visées |
| X | <p>DATABASE CROSSFIRE 'en ligne! Beilstein Institut fuer Literatur der organischen Chemie; XP002136749 * Beilstein Registry Number 241201 * & UNIV. KANS. SCI. BULL., vol. 24, 1936, page 45, 48 ---</p> | 1-3 |
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SUITE DES RENSEIGNEMENTS INDIQUES SUR PCT/ISA/ 210

Suite du cadre I.2

Revendications nos.: 1-3, 11, 12 (toutes en partie)

La phase initiale de la recherche a mis en évidence un très grand nombre de documents pertinents quant à la question de la nouveauté des revendications 1-3, 11 et 12. Tant de documents ont été trouvés qu'il est impossible de déterminer quelles parties de ces revendications peuvent être considérées comme définissant la matière pour laquelle une protection pourrait être légitimement revendiquée (Article 6 PCT). Pour ces raisons, une recherche significative et un rapport de recherche complets sur toute l'étendue de ces revendications sont impossibles. La recherche et le rapport de recherche à l'égard de ces revendications ne peuvent être considérés comme complets que dans la mesure où les exemples de la demande sont visés.

L'attention du déposant est attirée sur le fait que les revendications, ou des parties de revendications, ayant trait aux inventions pour lesquelles aucun rapport de recherche n'a été établi ne peuvent faire obligatoirement l'objet d'un rapport préliminaire d'examen (Règle 66.1(e) PCT). Le déposant est averti que la ligne de conduite adoptée par l'OEB agissant en qualité d'administration chargée de l'examen préliminaire international est, normalement, de ne pas procéder à un examen préliminaire sur un sujet n'ayant pas fait l'objet d'une recherche. Cette attitude restera inchangée, indépendamment du fait que les revendications aient ou n'aient pas été modifiées, soit après la réception du rapport de recherche, soit pendant une quelconque procédure sous le Chapitre II.

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